

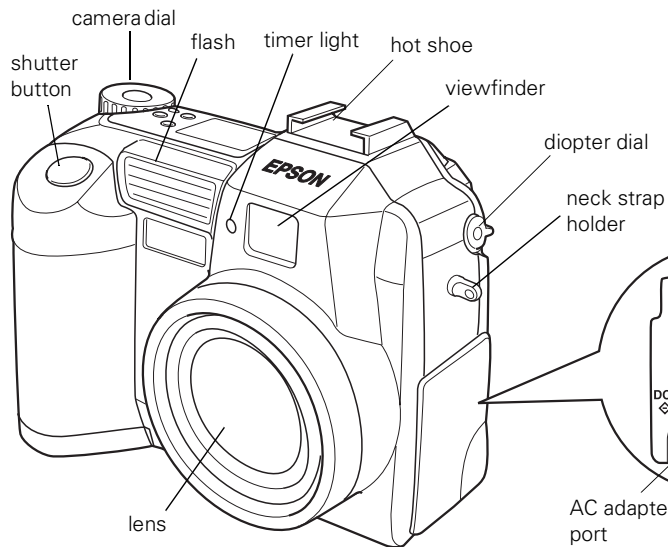
User's Guide



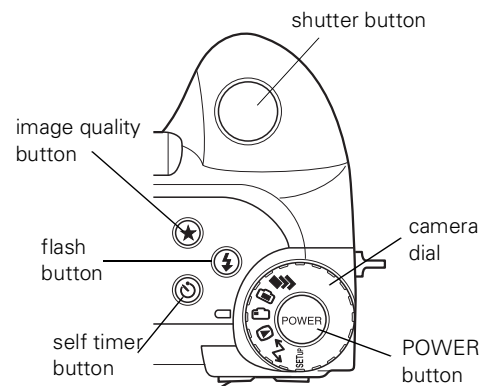
EPSON

DIGITAL CAMERA

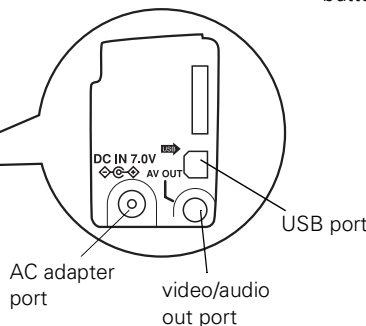
PHOTOPC 3100Z

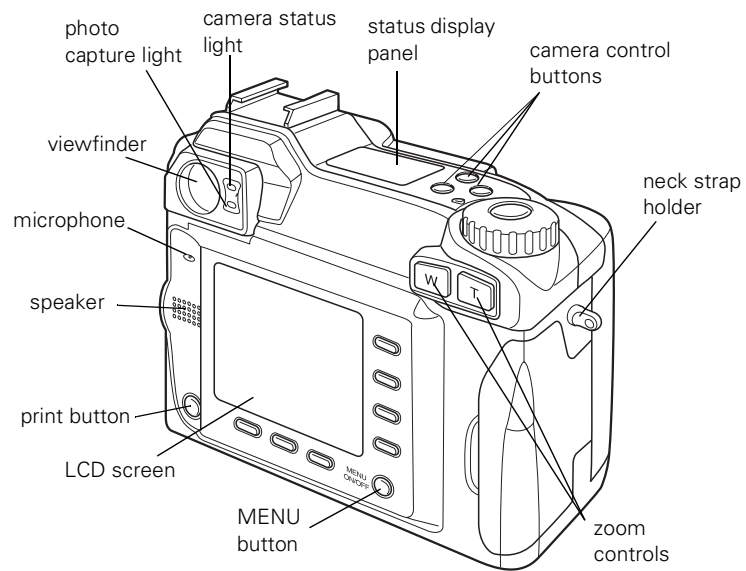


front view

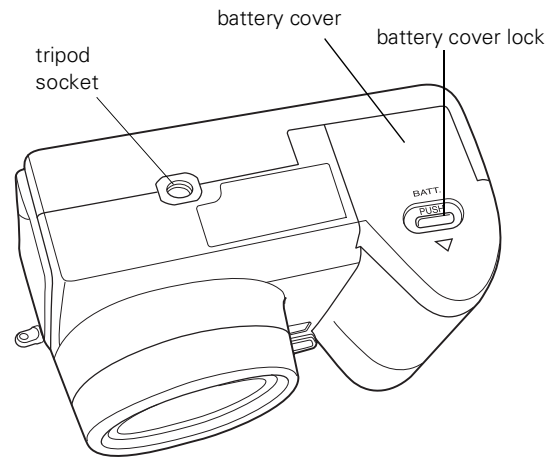


top view





back view



bottom view

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Introduction



Your new EPSON® PhotoPC® 3100Z is an ultra-high resolution, three megapixel, USB digital camera with 3× optical zoom. It includes three different user modes with varied levels of control: a manual mode for experienced photographers, a programmed mode for specific shots and time savings, and a fully automatic point-and-shoot mode for no-fuss photography.

The PhotoPC 3100Z comes with a built-in microphone and speaker that let you add and play back voice messages. You can also capture full-motion video with digital zooming and sound. Your camera puts you in control of all your shots with exposure, flash, white balance, metering, and focus settings.

The PhotoPC 3100Z captures 2048×1536 -pixel resolution images in 24-bit color, using a 3.34 megapixel CCD sensor. With EPSON's HyPict™ image enhancement technology, the images can be interpolated to 2544×1904 pixels (4.8 megapixels) right inside the camera. You can also capture uncompressed Tiff images for excellent detail.

Your PhotoPC 3100Z comes with cables, neck strap, soft case, lens cap, lens adapter, and a 16MB CompactFlash™ memory card. It also includes a CD-ROM with software and utilities for downloading, uploading, editing, organizing, stitching, and printing your pictures.

Software

The PhotoPC 3100Z software suite includes the following Windows® and Macintosh® applications:

- USB storage driver for transferring your pictures
- Sierra Imaging Image Expert™ software for transferring, organizing, editing, and printing your pictures. Also includes QuickTime™ and Adobe® Acrobat® Reader
- EPSON File Converter for converting files (including presentation slides) into a file format that you can upload into your camera
- Panorama Stitcher for stitching and printing your panoramic images

Optional Accessories

EPSON offers these accessories for the PhotoPC 3100Z:

- ▶ Universal AC adapter (part number B867081) for use with any standard (100 to 240 V) electrical outlet
- ▶ Universal NiMH Power Pak, which includes batteries and charger (part number B818172)
- ▶ NiMH rechargeable batteries (part number B818113)

Your camera is also compatible with a range of options that can enhance your shots and store more images. You can attach an optional flash to the camera's hot shoe for portrait photos or photos in places that are dimly lit. The camera's lens adapter allows you to add optional lenses and filters for specialized shots. You can also obtain additional CompactFlash memory cards (Type I) and PC card adapters made by leading suppliers, such as Lexar Media,[™] Delkin Devices,[™] and SanDisk.[®]

Using Your Documentation

Your EPSON PhotoPC 3100Z documentation gives you all the information you need to use your camera and software.

- ▶ Your *Quick Reference Guide* is a handy, portable guide that explains basic settings and how to take pictures.
- ▶ You can find instructions for using Image Expert in your electronic *Image Expert User's Guide*. (See Chapter 9 for details on reading the electronic guide.)
- ▶ This *User's Guide* includes most of the information you'll need and is divided into the following sections:

Using Your Camera and Taking Pictures	Explains setting up your camera, taking pictures and video clips, and playing back pictures and video clips.
Using Your Camera With Your Computer or Video Device	Tells you how to connect your camera to your computer, download photos, upload photos, present photos, stitch photos, and print photos.
Troubleshooting and Reference	Gives you important reference information, including troubleshooting, safety, and maintenance information.
Index	There is an index at the end of the book.

Using Your Camera and Taking Pictures

This section includes information about using your EPSON PhotoPC 3100Z to take and play back pictures, adjust camera settings, and capture video clips. It also explains how to use the camera to set up PRINT Image Matching™ and Digital Print Order Format (DPOF) files for printing. The following chapters are included in this section:

- 1 Setting Up Your Camera
- 2 Taking Pictures
- 3 Capturing Video Clips and Special Shots
- 4 Framing, Focusing, and Zooming
- 5 Adjusting Exposure and Color Settings
- 6 Playing Back Photos
- 7 Adjusting Camera Settings
- 8 Selecting Images for Printing



When you're ready to load your photos into your computer; or if you want to use your camera with your TV or other video device; or to stitch your photos into a panorama or print them, see the next section, "Using Your Camera With Your Computer or Video Device."

1

Setting Up Your Camera

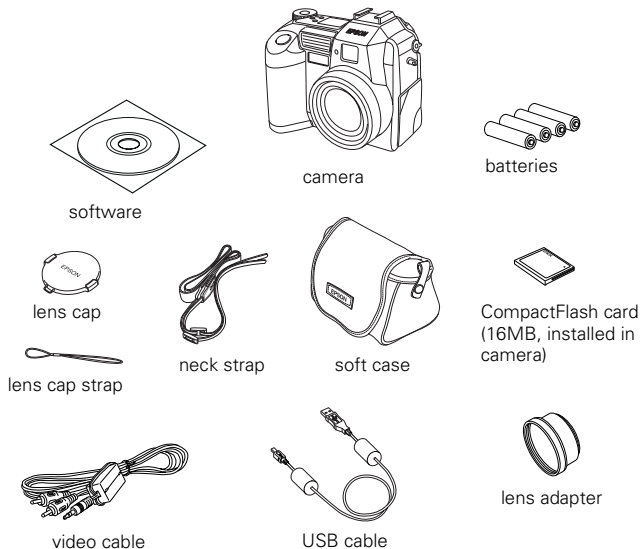
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Before you can start using your PhotoPC 3100Z, you need to install the batteries, format your memory card, and prepare the camera.

Unpacking Your PhotoPC 3100Z

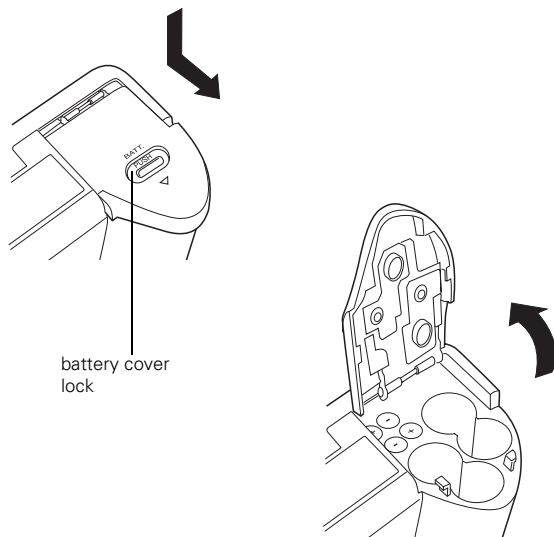
Make sure you have all the items shown below.



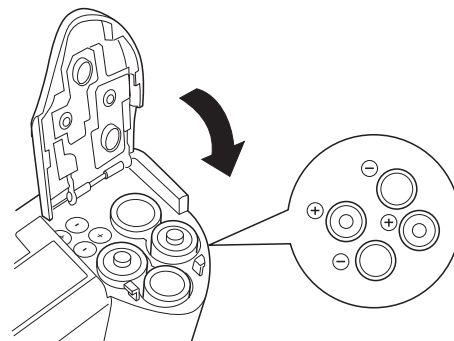
Installing Batteries

Before you install (or remove) batteries, make sure the camera is turned off.

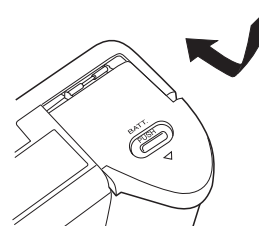
- 1 Hold the camera upside down.
- 2 Press and hold down the battery cover lock and slide the cover out to open it.




- 3 Insert four batteries into the compartment, positioning the + and – ends as shown below.



- 4 Lower the battery cover and slide it in, as shown below.



When the battery power is almost out, a low battery icon  appears on the camera's display panel. Be sure to replace all four batteries at the same time.

Battery Options

The PhotoPC 3100Z camera includes 4 AA alkaline batteries. It can accept the following battery types:

- ▶ Rechargeable AA NiMH batteries (highly recommended; to order the Universal NiMH Power Pak, see page B-2)
- ▶ Rechargeable AA NiCad batteries
- ▶ Single-use AA lithium batteries (longer life, Energizer® recommended)
- ▶ Single-use AA alkaline batteries (short term use only, Duracell® Ultra recommended)

WARNING

To avoid the danger of fire or explosion, do not mix different types of batteries. Do not allow the battery contacts to touch metal objects such as coins or keys, which could short out the battery. Read all safety instructions before using batteries.

Follow these safety instructions when handling batteries:

- ▶ *Do not use manganese batteries.*
 - ▶ *Do not mix different types of batteries; this can cause fire or explosion.*
 - ▶ *Replace all four batteries at the same time. Do not mix old and new batteries.*
 - ▶ *Do not drop, puncture, disassemble, or mutilate batteries. Do not get them wet or expose them to fire.*
 - ▶ *When the camera is not used for long periods of time, remove the batteries and store them at a low temperature in a dry location. Store away from the reach of children.*
 - ▶ *To avoid fire or electric shock, do not use batteries that are leaking or damaged in any way.*
 - ▶ *If battery acid gets in your eyes or on your skin, immediately rinse the area with water and seek medical treatment. If a battery is swallowed, seek medical treatment immediately.*
 - ▶ *Dispose of used batteries according to the manufacturer's instructions and in compliance with all applicable laws. Contact your local government agency for information about battery recycling and disposal.*
 - ▶ *Battery life varies depending on the battery type, the manufacturer, and other factors.*
-

Attaching the Neck Strap

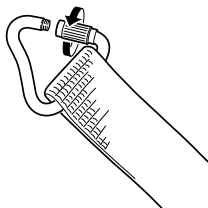
Your camera includes a neck strap that attaches to the camera to make it easier to carry.

WARNING

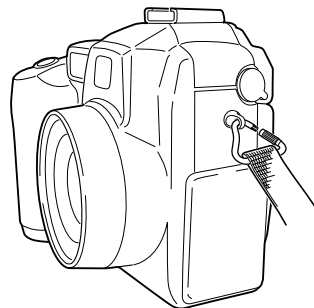
To avoid damaging the camera or other objects, or injuring people, do not swing the camera about. Keep the strap away from children. Do not pull or tighten the strap too firmly while wearing it around your hand or neck; this can cause serious injury.

To attach the neck strap:

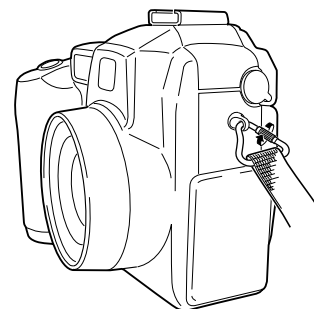
- 1 Unscrew the screw sleeve on the triangular fastener at one end of the strap.



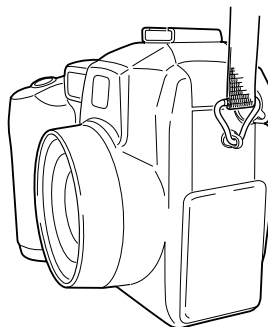
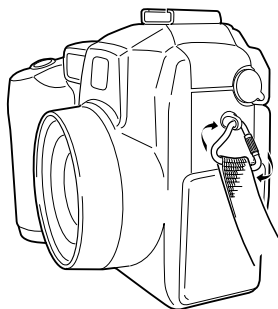
- 2 Attach the fastener to one side of the camera by passing it through the eyelet.



- 3 Tighten the screw sleeve on the fastener as shown below to close it.



- 4** After securing the fastener, turn it so that the screw sleeve is covered by the strap, as shown below.



- 5** Repeat steps 1 through 4 to attach the other end of the strap to the other side of the camera.

Attaching the Lens Cap

To secure the lens cap to the camera:

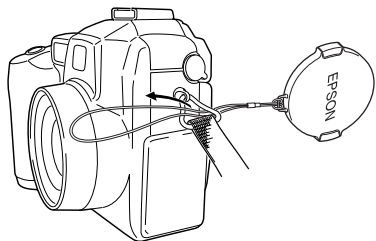
- 1** Pass the end of the string with the shorter loop through the eyelet on the edge of the lens cap.
- 2** Then, pass the end of the string with the longer loop through the shorter loop.



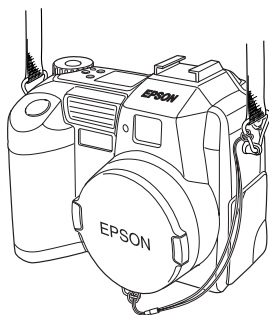
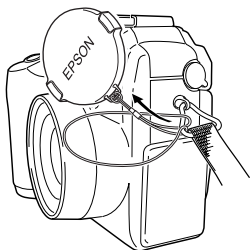
- 3** Pull the end of the string with the longer loop all the way through.



- 4** Pass the end of the string with the longer loop through the neck strap's triangular fastener.



- 5** Gently pull the lens cap through the string's longer loop until the string is securely attached to the camera.

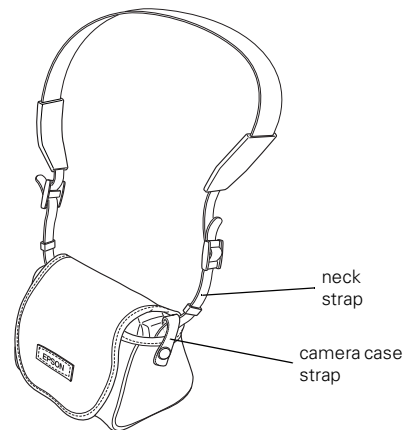


- 6** Push the lens cap onto the camera. It should snap into place.

To remove the lens cap, press in the lens cap release tabs on the sides as you pull the cap off of the camera.

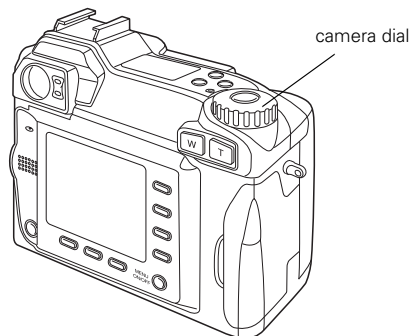
Using the Camera Case

Place the camera in the case upright, with the front of the camera facing the front of the camera case. Secure the top of the case with the velcro flap. Place the camera case strap over the neck strap and close the snap to secure the case to the neck strap.

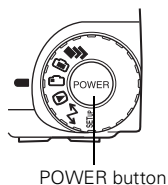


Using the Camera Dial and Turning On the Camera

The camera dial has six settings: three for taking pictures and three for performing other functions, such as setting up your camera or playing photos back on the LCD screen.



To turn on the camera, remove the lens cap, then press the **POWER** button in the center of the dial. (Press it again to turn the camera off.)



Camera dial settings include the following:



Use this setting for video clip capture, continuous shooting, interval shooting, and panorama stitching. See Chapter 3 for details.



Use this setting to take photos with the LCD screen. See page 2-3 for details.



Use this setting to take photos with the optical viewfinder. See page 2-1 for details.



Use this setting to play back and delete photos and video clips, and add audio recordings to your photos. See Chapter 6 for details.



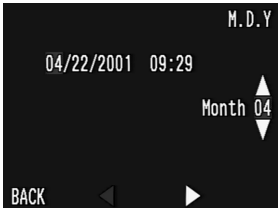
Use this setting whenever you are connecting your camera to the computer. Also use it for PRINT Image Matching and DPOF. See Chapter 8 for details.

SETUP

Use this setting to set up or view information about your camera on the Setup screen. See Chapter 1 and Chapter 7 for information.

Setting the Date and Time

Before you use the camera, you need to set its clock. Then the camera will automatically record the date and time for each picture you take. If you remove the batteries for an extended period of time (without connecting the camera to an optional AC adapter), you will need to reset the clock. To set the date and time:

- 1 Turn the camera dial to **SETUP**. Press the **POWER** button to turn on the camera.
- 2 You see the clock setting screen with the month highlighted in red.
- 3 Press the button next to the up or down arrows to increase or decrease the number, until the month is correct.
- 4 Press the button below the right arrow to select the day, year, and time (military time format). Make adjustments as described in the previous step.

- 5 Press the button next to the date display format to change it to **M.D.Y.** (12/31/2001), **D.M.Y.** (31/12/2001), or **Y.M.D.** (2001/12/31).
- 6 When you're finished, press the button under **BACK**. You see the **SETUP** menu.



Now you're ready to format the memory card.

Formatting Your CompactFlash Memory Card

Your camera comes with a 16MB memory card preinstalled in the camera. This card stores your photos, video clips, and audio recordings until you transfer them to your computer and delete them. You must format your CompactFlash memory card before you use it to store your images.

- 1 Turn the camera dial to **SETUP** and press the **POWER** button. You see the **SETUP** menu.
- 2 Press the button below **Memory SETUP**.

The Memory Card Format menu appears if a memory card is correctly installed in the camera.



CAUTION

When you format your memory card, all the data is lost, including any photos stored on your card.

- 3 Press the button next to **MEMORY CARD FORMAT** to format the card. You see a message warning you that all data on the card will be deleted.
- 4 Press the button next to **Yes** to format the card, or the button next to **No** to cancel.
- 5 Press the button under **BACK** to return to the **SETUP** menu.

Choosing Your User Mode

The PhotoPC 3100Z has three user modes to give you different levels of control over the camera settings. To use more advanced features, such as white balance and exposure adjustment, you must be in Program mode or Manual mode.

Program

This setting is recommended for photographers who want a moderate amount of control over the camera's functions. This is the camera's default mode. Programmed subjects (Normal, Sports, Portrait, and Landscape) tailor your camera settings to the type of picture you're taking. You can also make adjustments to sensitivity, white balance, and exposure.

Manual

This mode is for experienced photographers who want complete control over the camera's wide array of settings and features. In addition to changing sensitivity and white balance, you can adjust the shutter speed and aperture, choose a spot or matrix metering system, take pictures with an optional external flash, and focus the camera to three feet, ten feet, or infinity.

Full Auto

In this mode, the camera chooses most settings for you. You can simply point and shoot, or you can adjust some basic settings, such as image quality, digital zoom, and macro mode.

To choose the camera mode:

- 1 Turn the dial to **SETUP** and press the **POWER** button to turn on the camera.

You see the **SETUP** menu.

- 2 Press the button next to the current user mode to cycle through the three user modes.



NOTE

Your user mode stays in effect until you change the setting. If your camera is without battery power for an extended period of time, the user mode returns to the Program mode setting.

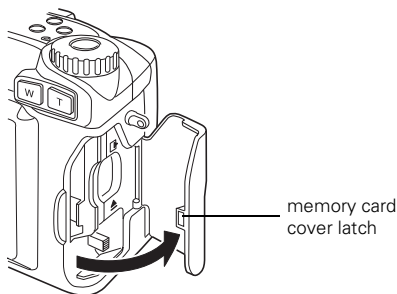
Removing a CompactFlash Memory Card

- 1 Make sure the camera is turned off. (Press the **POWER** button to turn off the camera, if it is on.)

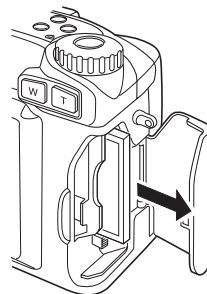
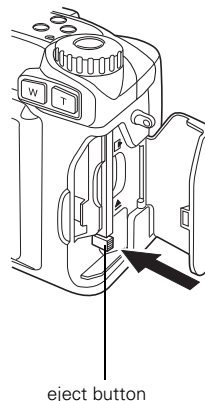
CAUTION

Never remove a card while the camera is on. Data in the card may be lost or damaged.

- 2 Place your finger behind the memory card cover latch and pull the cover open.



- 3 Push in the eject button to release the card. Then pull out the card and close the cover.



Installing a CompactFlash Memory Card

You can purchase additional Type I CompactFlash memory cards from leading suppliers like Lexar Media, Delkin Devices, and SanDisk. See page B-2 for more information.

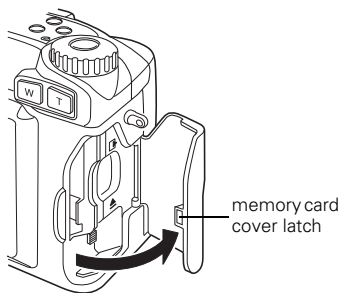
To install a memory card:

- 1 Make sure the camera is turned off. (Press the **POWER** button to turn off the camera, if it is on.)

CAUTION

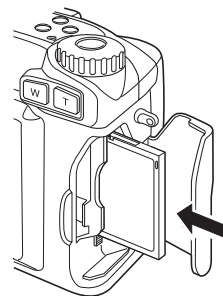
Never remove a card while the camera is on. Data in the card may be lost or damaged.

- 2 Place your finger behind the memory card cover latch and pull the cover open.



- 3 Make sure the front of the card is facing the same direction as the front of the camera, and the arrow on the card's label is pointing in.

- 4 Insert the card all the way into the memory card slot. As you insert the card, the eject button pops up.



CAUTION

Don't force the card into the slot. If the card doesn't slide in all the way, turn the card over and reinsert it.

- 5 Close the memory card cover.

2


Taking Pictures

Sections in this Chapter:

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Taking Pictures With the LCD Screen	2-3
Setting Resolution	2-7
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Taking pictures with the PhotoPC 3100Z is easy and gives you lots of options.


Taking Pictures With the Viewfinder

 You can capture an image as you would with any point-and-shoot auto-focus camera: look through the optical viewfinder and press the two-step shutter.

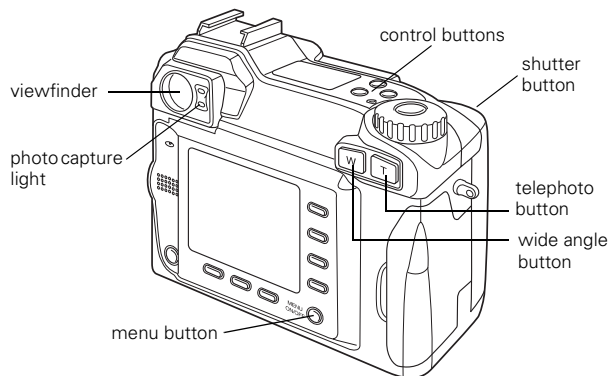
- 1 Make sure you are at least 20 inches (50 cm) away from your subject. (To get closer, use macro mode with the LCD screen, as described on page 4-4.)

NOTE

You need to use the LCD screen to make audio recordings or use the macro and digital zoom features.

- 2 Remove the lens cap, press the **POWER** button to turn on the camera, and turn the camera dial to .

- 3 Wait until the photo capture light stops flashing and remains a steady green.



- 4 Use the camera's control buttons to change image quality, flash, or other basic settings. (Instructions for changing basic settings start on page 2-7.)
- 5 To change the programmed subject setting (when the user mode is set to **Program**), or to make changes to exposure, white balance, or other advanced settings, press the **MENU** button to see the Viewfinder menu.
- 6 Look straight through the viewfinder and center your subject.

- 7 Push the T (telephoto) button to zoom in on your subject, or the W (wide angle) button to zoom out.

- 8 Hold the shutter button halfway down to lock the camera's settings. The photo capture light flashes until the lens locks in focus and the camera determines the exposure.



While holding down the shutter button, you can reframe your picture to move the subject off-center, if you want.

- 9 Press the shutter button the rest of the way down to take the picture.




- 10 After the shutter snaps, release the shutter button. The camera processes the picture.

CAUTION

Handle the camera carefully while it is processing your image, and don't set it down too hard.

Saved images remain on the memory card even when you remove the card from the camera, or remove the batteries.

Taking Pictures With the LCD Screen

 The LCD screen lets you see a live preview of what the camera's lens sees at any moment. You must take pictures with the LCD screen when you want to use the macro or digital zoom features or when you want to make audio recordings to go with your photos. Before you begin to take pictures, you can use the SETUP menu to turn on audio recording with the Confirmation setting (see page 2-14).


To take pictures with the LCD screen:

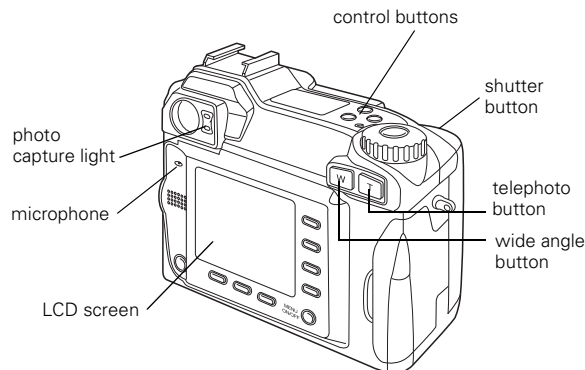
- 1 Make sure you are at least 20 inches (50 cm) away from your subject. (To get closer, use macro mode as described on page 4-4.)

NOTE

See Chapter 3 to take special shots (including video clips and time lapse/interval shots), see Chapter 4 for framing, focusing, and zooming shots (including panorama stitching), or see Chapter 5 for color and exposure settings.

- 2 Remove the lens cap and press the **POWER** button.

- 3 Turn the camera dial to  to see the View menu. Wait until the camera photo capture light stops flashing and remains a steady green.



You see a preview of your picture on the LCD screen, with the image quality and flash settings in the top left corner of the screen.



This screen illustrates what you see if your camera is set to Program user mode.

The screen looks different if you're using Full Auto or Manual user mode. (See page 1-10 to change your user mode setting.)

NOTE

If you're using batteries, the camera shuts off automatically after a designated period of inactivity. (The default is 30 seconds. See page 7-2 to set the auto power off time.) When it is connected to the AC adapter, the camera shuts off after 15 minutes. If the image on your LCD screen disappears, press the shutter button to "wake" the camera.

- 4** Using the preview image to guide you, make changes to the settings on the screen, if you like.

NOTE

You can also use the camera's control buttons to change the image quality, flash setting, or timer. (See the following sections for details on these settings.)

- 5** Push the **T** (telephoto) button to zoom in on your subject, or the **W** (wide angle) button to zoom out. You see a display with green zoom steps and the current zoom position in yellow.




NOTE

If digital zooming is enabled, the slider pauses in the middle. If you keep zooming beyond the midpoint of the slider, you are using the digital zoom. (See page 4-1 for details.)

- 6** Center your subject on the screen, then press the shutter button halfway down to lock the auto focus and exposure.



You see a green circle  on the screen when the lens locks in focus and the camera locks its exposure settings. While holding the shutter button down, you can reframe your picture.

- 7** Press the shutter button the rest of the way down to take the picture.



8 When the shutter snaps, release the shutter button.

If the Confirmation setting is on, you see a confirmation screen.



From the confirmation screen, you can:

- ▶ Press the button next to **Delete** to delete the image.
- ▶ Press the button next to **Rec Sound** and record a 10-second message into the camera's microphone.
- ▶ Press the button next to **▶** to instantly play back your images. (Press the button under **BACK** to return to the View menu.)

NOTE

*You enable the confirmation screen in the Shot **SETUP** menu. See page 2-14 for detailed instructions.*

When the camera stops processing the image, you're ready to take another picture.



Playing Back Images from the View Menu


You can play your images back quickly, without turning the camera dial and changing to playback mode. The View menu's quick playback screen allows you to view your photos, play back audio, and delete individual photos.

NOTE

See Chapter 6 for additional playback options that you can use in the camera's Playback menu.

To play back your images:

- 1 Turn the camera dial to .
- 2 In Full Auto or Program mode, press the button next to the  icon.

In Manual mode, press the button under **MENU CHANGE**. Then press the button next to the  icon.

You see the quick playback screen displaying the last picture you took.






- 3 Press the button next to the right arrow to display the earliest picture taken and to view your pictures in order. Press the button next to the left arrow to move backward through your pictures.
- 4 Press the button under **Multi** once if you want to display four images on the screen at once, or twice if you want to display nine images. Press it a third time to go back to a single image display.
- 5 Press the **T** button to magnify your image and press the **W** button to zoom out. Press the button under **BACK** to return to the quick playback menu.

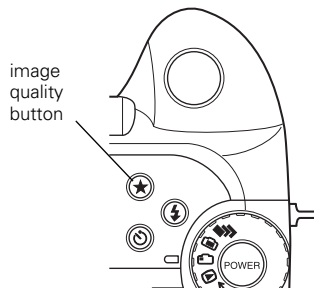
To return to the View menu and continue taking pictures, press the button under **BACK**.

Setting Resolution

The PhotoPC 3100Z has four resolution settings for JPEG images and one resolution setting for uncompressed Tiff images.

Press the image quality button on top of the camera to cycle from one setting to the other. The camera dial must be turned to , , or  to set the image quality.

An image quality icon appears on the status display panel and on the LCD screen to show the current resolution setting. The settings are described to the right.



NOTE

For a list of the number of images you can take at each resolution setting, see page C-5.

Standard JPEG

★ Produces color or black and white images at 640×480 pixels. Images include less detail when enlarged. This setting is good for pictures that are viewed on the screen or Internet.

Fine JPEG

★★ Produces color or black and white images at 1600×1200 pixels. Your pictures include ample detail.

Super Fine JPEG

★★★ Produces color or black and white images at 2048×1536 pixels. Your pictures include great detail. This setting is best for 8×10 -inch prints.

HyPict JPEG

★★★ Produces color or black and white images at 2544×1904 pixels (interpolated). Your pictures include excellent detail. This setting is best for images you are enlarging up to 11×17 -inches.

Uncompressed Tiff

★★★ Produces color and black and white images at 2048×1536 pixels with no compression. Your pictures include perfect detail without the distortion that compression may cause. You can use this mode only when you have at least 9.1MB free on your CompactFlash memory card. Your included memory card can hold 1 Uncompressed Tiff picture.

You can enable (or disable) Uncompressed Tiff mode in the Shot SETUP menu:

- 1 Turn the camera dial to **SETUP** and press the **POWER** button to turn on the camera. You see the **SETUP** menu.
- 2 Press the button next to **Shot SETUP** to go to the **Shot SETUP** menu.



- 3 Press the button under ★★ **Image JPEG** to change the setting to ★★ **Image Tiff**. (Press the same button to change the setting back.) If your CompactFlash card has too little space to store a Tiff image, you see a message warning you to use a card with at least 9.1MB of free space.
- 4 Press the button under **BACK** to return to the **SETUP** menu.

NOTE

- ▶ To capture Tiff photos, make sure the image quality is set to ★★★.
 - ▶ You will notice a delay of approximately 22 seconds while the camera processes your image in Tiff mode.
 - ▶ If you want to take multiple shots in Uncompressed Tiff mode, you can buy a higher-density CompactFlash memory card, which lets you store more photos. See Appendix B for details. (You can still store several JPEG images with one Tiff picture on the card that comes with your camera.)
-

Setting the Image Compression

You can set the image compression to low compression for higher quality JPEG images, or standard compression to save space on your memory card.

- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button next to **Shot SETUP**. You see the **Shot SETUP** menu with the current setting.
- 3 Press the button next to the compression setting to change it to one of the following:
 - ▶ **Std. (standard) Compression:** images have a smaller file size, but some information is lost.
 - ▶ **Low Compression:** images retain information and look better, but the file size is larger.
- 4 Press the button under **BACK** to return to the **SETUP** menu.

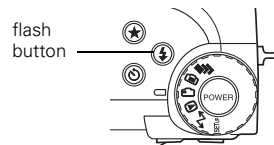


Using the Flash

Your camera has a built-in flash or you can use the hot shoe to attach an optional external flash. See Appendix B for more information on purchasing and attaching an external flash.

After you take a picture with the flash, the flash icon blinks until it is fully recharged. Your flash setting remains in effect even after you turn off the camera.



Turn the camera dial to , , or , then press the flash button to cycle through the five flash settings.



NOTE

You can't use the flash in continuous shooting or video clip capture mode.

TIP

- ▶ When you're using the Flash Off  setting, hold the camera steady or use a tripod to avoid capturing blurry images.
 - ▶ If you are taking pictures outdoors in bright light, the camera may reduce the exposure and darken your subject. To brighten your subject without over-exposing the whole picture, you can use the Forced Flash  setting.
-

An icon for each setting appears on the status display panel, as shown below:

Auto



The flash goes off automatically whenever it's needed for adequate lighting (default setting).

Forced Flash



The flash goes off with every picture you take. Use this setting to compensate for backlighting (when you are facing a light source).

Flash Off



The flash is disabled, even when lighting is inadequate. Use this setting for special effects, where flash photography is prohibited, or for macro close-ups.

Red-eye Reduction



Use this setting to eliminate the red-eye effect (the reddish reflection of the flash in your subjects' pupils) that flash photography often produces.

Slow Synchronized Flash



Slow synchronized flash causes the aperture to stay open longer, allowing more light to enter the camera.

The camera has two slow synchronized flash settings:

- ▶ The leading setting sets off the flash first, then exposes the subject and takes the picture. Hold the camera still or use a tripod when you are using the leading setting. (See Appendix B for instructions on using a tripod.)
- ▶ The trailing setting flashes at the end of the exposure, allowing you to capture background motion while freezing your subject.

Selecting a Slow Synchronized Flash Setting

- 1 Turn the camera dial to **SETUP**. You see the **SETUP** menu.
- 2 Press the button next to **Shot SETUP**. You see the **Shot SETUP** menu:
- 3 Press the button next to **⚡ Leading** or **⚡ Trailing**.
- 4 Press the button under **BACK** to return to the **SETUP** menu.



NOTE

Slow synchronized flash is available only in the Program or Manual user modes. If you are using your camera in Manual mode, make sure you don't set the flash mode to **Ext Flash**. See page 1-10 for information about changing the user mode.

Selecting Color or Black and White Mode

You use the **SETUP** menu to switch between color and black and white pictures.

- 1 Turn the camera dial to **SETUP**. You see the **SETUP** menu.
- 2 Press the button next to **Monochrome** or **Color** to select your desired setting.



NOTE

There is no difference between the file sizes of color and black and white pictures.

Taking Pictures With the Timer






Setting the timer creates a 10-second delay between the time you press the shutter button and the actual image capture. This allows you to take a picture of yourself.

NOTE

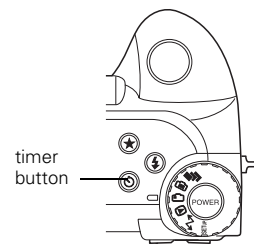
You can also use continuous or interval shooting, or video clip capture with the timer for delayed automatic capture of images. This allows you to photograph yourself in motion. See Chapter 3 for more information.

To take a single picture with the timer:

- 1 Secure the camera on a flat surface or on a tripod. (See page B-4 for information on attaching the camera to a tripod.)
- 2 Turn the camera's dial to  or . Then wait until the photo capture light stops flashing and remains a steady green.


- 3 Press the  timer button on the top of the camera. The timer icon appears in the status display panel.

- 4 Press the shutter button all the way down.



The timer icon and the red timer light on the front of the camera flash slowly for eight seconds. Then they flash rapidly for two seconds before the shutter is released. If camera sounds are enabled, the camera beeps ten times. (See page 7-3 to enable camera sounds.)

NOTE

To cancel a timer picture after you've pressed the shutter button, press the shutter button again, or press the  timer button.

The camera clicks when the image is captured. The photo capture light on the back of the camera flashes green as the PhotoPC 3100Z processes the image.

Using Programmed Subject Settings

The Program user mode provides four programmed settings that let you choose the type of shot you're taking. The camera automatically assigns the optimum exposure, metering method, and sensitivity for your subject.



Normal

Appropriate for most photographs. Settings: auto exposure and matrix metering.



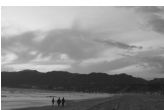
Sports

Recommended for action photographs. Settings: high shutter speed, automatic sensitivity, and matrix metering.



Portrait

Recommended for portraits. Settings: spot metering and a wide aperture setting.



Landscape

Recommended for landscapes or scenery. Settings: matrix metering and automatic aperture priority (set by camera).

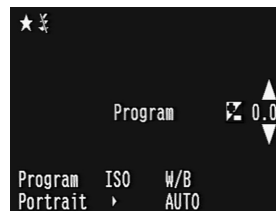
To use programmed subject settings:

- 1 Remove the lens cap and press the **POWER** button to turn on the camera.
- 2 Set the camera to Program user mode. (See page 1-10.)

- 3 To take a picture with the LCD screen, turn the camera dial to . You see the View menu.



To take a picture with the viewfinder, turn the camera dial to . Then press the **MENU** button. You see the Viewfinder menu.



- 4 Press the button under the **Program** setting to cycle through the four subject settings.
- 5 Take your picture. (See page 2-1 or 2-3 for details.)

Enabling the Confirmation Screen

The confirmation screen shows you a quick view of your picture right after you take it. Then you can add an audio recording, delete the image, or play back your photos instantly.

To turn the confirmation screen on or off:

- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button next to **Shot SETUP**.

You see the Shot **SETUP** menu with the current confirmation setting.

- 3 Press the button next to **Confirmation** to change the setting to **Off** or **On**.
- 4 Press the button under **BACK** to return to the **SETUP** menu.

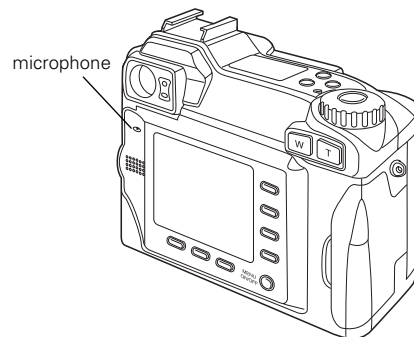


Adding Sound to Pictures

Your camera has a built-in microphone that lets you add an audio recording of up to 10 seconds to each photo.

You can record audio in any user mode immediately after shooting a photo as described here, or you can add it later.



For instructions on adding a recording when playing back photos, see page 6-5. For instructions on playing back recordings with your camera, see page 6-6.



NOTE

When taking photos, you can only record audio if the LCD screen is turned on and the Confirmation setting is enabled. Audio recordings take up memory on your CompactFlash memory card and reduce the number of photos you can store.

To take a picture and add a recording:

- 1 Make sure the confirmation screen is enabled, as described on page 2-14.
- 2 Turn the camera dial to . Center the subject on the LCD screen.
- 3 Press the shutter button halfway down to lock the auto focus.
- 4 When the photo capture light stops flashing and you see a green circle  on the screen, press the shutter button the rest of the way down.
- 5 After the shutter snaps, release the shutter button.

You see the confirmation screen.

- 6 Press the button next to **Rec Sound**.



You see the message **Recording sound...** and a countdown of the recording time.

- 7 Speak clearly into the microphone to record your message.



You can record a message for up to ten seconds. To stop recording, press the button under **Stop**.



CAUTION

*If you press the button next to **Delete**, the camera deletes your photo.*

To delete a recording, see page 6-6.

Using Instant Playback and Delete


You can instantly play back the photo you just took. You can also instantly delete the image.

- 1 Make sure the confirmation screen is enabled, as described on page 2-14.
- 2 Turn the camera dial to . Center the subject on the LCD screen.
- 3 Press the shutter button halfway down to lock the camera settings.
- 4 When the photo capture light stops flashing and you see a green circle  on the screen, press the shutter button the rest of the way down.
- 5 After the shutter snaps, release the shutter button.

You see the confirmation screen.



- 6 To delete the image, press the button next to **Delete**. Your image is deleted and the camera returns to the View menu.

- 7 To play back an image, press the button next to the  icon. You see the instant playback screen.






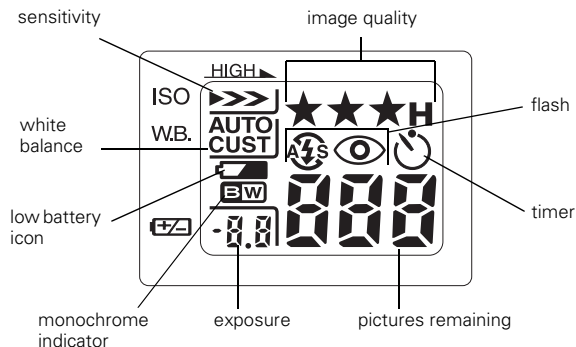
From the instant playback screen, you can:

- ▶ Press the button under **Multi** to view multiple images at once. (See page 6-2 for details.)
- ▶ Press the button next to **Sound Play** to play back any recordings you made for your images.
- ▶ Press the button under **Delete** to delete an image.
- ▶ Press the T button to magnify your image and press the W button to zoom out. Press the button under **BACK** to return to the instant playback screen.


Press the button under **BACK** to return to the View menu.

Reading the Status Display Panel

When your camera dial is turned to , , or , the status display panel (on the top of the camera) shows the camera's current settings and how many additional pictures you can take.



Checking the Battery

 When your battery power is almost out, the low battery icon appears on the display panel; it flashes when your battery power is too low to use the camera. You need to recharge or replace your batteries or use the optional universal AC adapter when you see this icon.

Although you may be able to use the camera with low batteries, it needs full battery power to operate reliably.

NOTE

Several factors can affect battery life, including the surrounding temperature and the type of batteries you use. Low temperatures—especially below 50 °F (10 °C)—drain batteries faster. See page 1-3 for battery use instructions.

Checking the Picture Counter

The large number in the lower right of the status display panel shows how many additional pictures you can take.

This number is determined by the image quality (resolution) and compression settings. Also, if you have any audio and/or video recordings stored on your memory card, the number on the display panel may be greater than the actual number of remaining pictures.

When the memory card is full, the number on the display panel reads 0, the camera status light on the back of the camera flashes red, and you can no longer use the shutter button. Before you can take any more pictures, you need to delete some of the images on the memory card. (See page 6-3 for instructions.)

If you want to save your photos before you delete them, connect the camera to your computer (as described in Chapter 9), then transfer the pictures (as described in Chapter 10).

Checking Other Status Information

Instead of the number of pictures remaining, you may see one of the following in the lower right corner of the status display panel:

- In Program mode or Manual mode, the exposure value appears on the left and the shutter speed appears on the right when you hold the shutter button down halfway. See page 1-10 for more information about user modes.

8.0 30

- When you turn the camera's dial to **SETUP**, **SEt** is displayed. No other information appears in the status display panel.

SEt

- While you make an audio recording, **rEc** appears in this space.

rEc

- While you take photos using the interval shooting feature, **Int** appears on the display panel.

Int

3 *Capturing Video Clips and Special Shots*

Sections in this Chapter:



Recording Video Clips	3-1
Continuous Shooting	3-3
Interval Shooting	3-5

Your PhotoPC 3100Z lets you take shots of moving and changing subjects, including video clips and time lapse photos. You can also take quick sequences of shots, without having to wait for the camera to process each image.


Recording Video Clips

You can capture 35-second silent video clips or 25-second video clips with sound at 15 frames per second. The clips are saved at 320×240 pixels in the Motion JPEG format, and play back on your computer in the QuickTime Movie format.

NOTE

- Hold the camera upright when capturing video clips. If you hold the camera sideways, your video will play back sideways. You can't rotate video clips without a separate video editing program.
- If you want to adjust any camera settings, such as white balance, sensitivity, or macro mode, turn the camera dial to  to see the View menu and adjust the settings, then turn the camera dial back to . See Chapters 4 and 5 for more information.

To record a video clip:

- Turn the camera dial to  and press the POWER button to turn on the camera.

You see a screen like this:

- 2 To turn the sound on or off, press the button next to the **Sound** setting.



- 3 Push the **T** (telephoto) button to zoom in on your subject or the **W** (wide angle) button to zoom out. You see a display with green zoom steps and the current zoom position in yellow.



- 4 Press the shutter button to begin recording your video clip. To stop recording before the time is up, press the shutter button again.

You see the red letters **REC** on the screen and a time countdown appears while your camera is recording.

If digital zooming is enabled, you can digitally zoom in on your subject while you are recording. Push the **T** (telephoto) button to zoom in on your subject, or the **W** (wide angle) button to zoom out. (See page 4-1 to enable digital zooming.)

When the recording is done, the camera displays **Please wait...** and takes a minute to store the video.

To play back your video clip, see page 6-8.

TIP


If you want to edit your video clips, you can upgrade from the QuickTime Player to QuickTime Pro. Go to <http://www.apple.com/quicktime/> on the Internet for details.

Continuous Shooting


In this mode, you can capture motion in a series of shots. You can capture up to the following numbers of continuous shots per sequence: forty-seven standard images (two per second), thirteen fine images (two per second), or seven super fine images (one per second).

You can't use the flash for continuous shooting, so make sure you have adequate lighting for your pictures. Also, you can't select the HyPict JPEG or uncompressed Tiff image quality settings.

NOTE

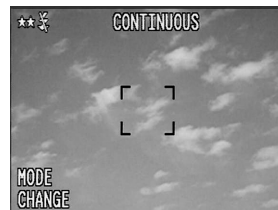
If you want to adjust any camera settings, such as white balance, sensitivity, or macro mode, turn the camera dial to  to see the View menu and adjust the settings. See Chapters 4 and 5 for details.

To take a sequence of pictures:

- 1 Turn the camera dial to . Wait until the photo capture light stops flashing and remains a steady green.

- 2 Press the button under **MODE CHANGE** to change to Continuous Shooting mode.

You see a preview of your picture with a red frame around the LCD screen. **CONTINUOUS** appears on the screen.



- 3 Frame your subject.
- 4 Press and hold the shutter button all the way down.

If the camera's shutter sound is enabled, the camera clicks as it captures each picture. (See page 7-3 to enable camera sounds.)


- 5 When the camera has captured a sequence of pictures, release the shutter button.

NOTE

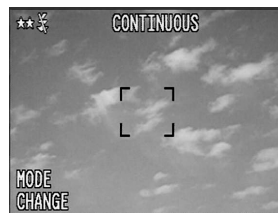
If you continue to hold down the shutter button after the first sequence of pictures, the camera will pause to process the images and then take a second sequence. The camera will continue to take pictures until the memory card is full.


Continuous Shooting Using the Timer

You can also combine continuous shooting with the timer to delay automatic capture of a series of images. This allows you to photograph yourself in motion. You can capture up to the following numbers of continuous shots per sequence: forty-seven standard images (two per second), thirteen fine images (two per second), or seven super fine images (one per second).

- 1 Secure the camera on a flat surface or on a tripod. (See page B-4 for information on attaching the camera to a tripod.)
- 2 Turn the camera dial to . Press the **POWER** button to turn on the camera and wait until the photo capture light stops flashing and remains a steady green.
- 3 Press the button under **MODE CHANGE** to change to Continuous Shooting mode.

You see a preview of your picture on the LCD screen, with a red frame around it. **CONTINUOUS** appears on the screen.



- 4 Center your subject in the red frame.
- 5 Press the timer button. The  timer icon appears on the status display panel to indicate that the timer is enabled.
- 6 Press the shutter button.

You have 10 seconds to get ready for “action” in front of the camera. The timer icon and the red timer light on the front of the camera flash slowly for eight seconds. Then they flash rapidly for two seconds before the shutter is released.


If the camera’s shutter sound is enabled, the camera clicks as it captures each picture. See page 7-3 to enable camera sounds.

Interval Shooting


You can use this time lapse feature to capture scenes that change over time, such as a sunset or a busy street corner. Your camera lets you set a time interval from 5 seconds to 24 hours.

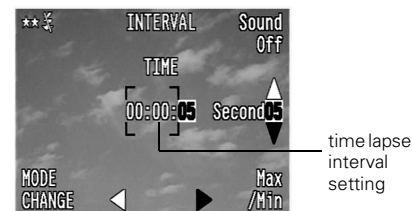


NOTE

- ▶ You can't capture HyPict JPEG or uncompressed Tiff images in interval shooting mode.
 - ▶ If you want to adjust any camera settings, such as white balance, sensitivity, or macro mode, turn the camera dial to  to see the View menu and adjust the settings. See Chapters 4 and 5 for more information.
-

To capture time lapse shots in interval mode:

- 1 Secure the camera on a flat surface or on a tripod. (See page B-4 for information on attaching the camera to a tripod.)
- 2 Turn the camera dial to . Press the POWER button to turn on the camera and wait until the photo capture light stops flashing and remains a steady green.
- 3 Press the button under MODE CHANGE twice. You see this screen:



The current setting for the time lapse interval (hours, minutes, and seconds) appears in the center of the screen, with seconds highlighted.

- 4 Press the buttons next to the up and down arrows to change the highlighted setting, then press the button under the left arrow to move to the next setting and repeat the process. Continue until you've set the correct interval.

NOTE

*You can also choose the maximum interval of 24 hours or the minimum interval of 5 seconds (10 seconds if the flash is on, 20 seconds if sound is on) by pressing the button next to **Max/Min**.*

- 5 Press the button next to **Sound** to turn the setting to **Off** or **On**.
- 6 Press the shutter button to take the first picture.

The camera turns off automatically after you take the first picture, then turns on again after the selected interval to take the next photo.



While the camera is standing by between shots, **Int** appears in the display panel.

- 7 To stop taking pictures, press the **POWER** button to turn off the camera.

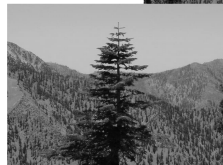
The number of photos you can take is limited by the space on the CompactFlash memory card. With a higher density card, you can store more pictures. (See Appendix B for more information.)

TIP

*You can use a movie editing or animation program to turn your interval photos into time lapse movies that you can play on your computer or on the Internet. Set the camera to ★ **Standard** image quality or resize your images in an image editing program for a manageable movie file size. Some programs that you can use are: QuickTime Pro, Macromedia® Flash™, iMovie 2 (Apple), Movie Maker (included with Windows Me), or Adobe® ImageReady™ (included with Photoshop® 5.5, or later). See your program's documentation for more information.*

4

Framing, Focusing, and Zooming



Sections in this Chapter:

Using Digital Zoom	4-1
Taking Close-Ups With Macro Mode	4-4
Adjusting the Focus Manually	4-5
Capturing Panoramas	4-6

Your camera has great shot-capturing capabilities that let you get the exact image you want. You can use the digital zoom, frame multiple images to stitch into a single panorama, or focus in on a close object with macro mode. You can also manually focus the camera to a fixed point.

Using Digital Zoom

Digital zoom pictures are magnified up to two times (2×) beyond the maximum optical zoom. The automatic cropping effect makes file sizes smaller. Enabling digital zoom also allows you to zoom when capturing video clips.

Enabling Digital Zoom

- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.



- 2 Press the button next to **Shot SETUP**. You see the **Shot SETUP** menu.



- 3 If the digital zoom setting is set to **D-ZOOM Off**, press the button next to it to change the setting to **D-ZOOM On**. (Press the same button if you want to turn digital zooming off again.)
- 4 Press the button under **BACK** to return to the Setup menu.

Taking Digital Zoom Pictures

- 1 Turn the camera dial to . You see the **View** menu.



NOTE

*This example shows the View menu when the user mode is set to **Program**. Depending on the user mode setting, your View menu may look different.*

- 2 Push the **T** (telephoto) button to zoom in on your subject with the optical zoom. You see a display with green zoom steps and the current zoom position in yellow.



- 3 The slider pauses in the middle. If you keep holding down the T (telephoto) button, you can keep zooming beyond the midpoint of the slider. Any point beyond the middle of the slider is digital zooming.

When you are in digital zoom mode, the line that indicates the zoom position becomes narrower and a yellow border appears around the LCD screen. The words **DIGITAL ZOOM** appear on the LCD screen briefly.



- 4 Press the shutter button halfway to lock the auto focus and exposure. When the camera locks its settings, the photo capture light stops flashing and you see a green circle ● and flash and exposure settings on the screen. If you want, you can reframe your picture while holding the button down.

- 5 Press the button all the way down to capture the image.


NOTE

Since the digital zoom mode magnifies the image by cropping it, there is less information and the file is smaller. It's best to print the image in a smaller format, such as 4 × 6 inches. For a better final printed image, use HyPict mode, which adds more image data with interpolation.


Taking Close-Ups With Macro Mode

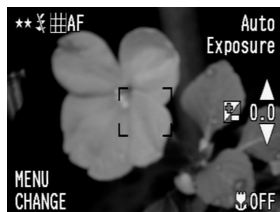
You can use the camera's macro mode to take pictures of subjects that are as close as 2.36 inches (6 cm).

NOTE

- ▶ When you take macro close-ups, you should use a tripod (as described in Appendix B) and disable the flash. Otherwise, your pictures may appear blurry or washed out.
- ▶ You can't capture macro images with the viewfinder. You must use the LCD screen to accurately frame your photo.
- ▶ If you are taking close-ups between 2.36 inches (6 cm) and 8 inches (20 cm), the camera must be zoomed all the way out. Press the **W** (wide angle) button until the  icon is highlighted in yellow and you can't zoom out any further.



To take a picture in macro mode:

- 1 Turn the camera dial to . You see the View menu.

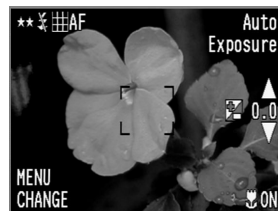



NOTE

This View menu illustrates what you see if your user mode is set to **Manual**. Your View menu will look different if the user mode is set to **Full Auto** or **Program**.

- 2 Press the button next to  **Off** (macro mode off) to change the setting to  **On** (macro mode on).

A green frame appears around the preview image and for a few seconds, the word **MACRO** appears on the LCD screen.



- 3 Press the shutter button halfway to lock the auto focus and exposure. When the camera locks its settings, the photo capture light stops flashing and you see a green circle  on the screen. You can reframe your picture while holding the button.
- 4 Press the button all the way down to capture the image.


Macro mode remains active until you disable it or turn off the camera.

Adjusting the Focus Manually

The PhotoPC 3100Z lets you manually select a fixed focus.

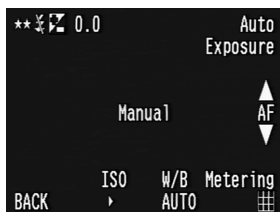
- 1 Make sure that the camera is set to Manual user mode.
(See page 1-10 for details.)

- 2 Turn the camera dial to  or .

If you are taking pictures using the viewfinder (with the camera dial set to ) , press the **MENU** button.

If you are taking pictures with the LCD screen, you see the View menu.

- 3 Press the button under **MENU CHANGE**. You see one of the following screens:




Viewfinder



LCD Screen

- 4 Press the buttons next to the up and down arrows to select a manual focus setting.

If the camera is set to  **Off** (macro mode off), you can choose from the following settings:

- AF** The camera determines the focus automatically.




Focal point is about three feet.



Focal point is about 10 feet.




Focus is infinity.

If you're using the  **On** (macro mode on), you can choose one of the following settings:

- AF** The camera determines the focus automatically.

- M1** Focal point is about 8 inches.

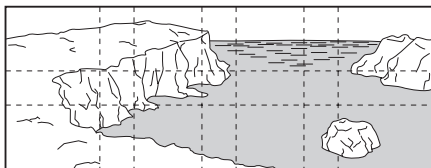
- M2** Focal point is about 20 inches.

- 5 Press the shutter button halfway to lock the camera's exposure settings. When the camera locks its settings, the photo capture light stops flashing and you see a green circle  on the screen. You can reframe your picture while holding the button down.

- 6 Press the button all the way down to capture the image.

Capturing Panoramas



Your camera lets you capture a series of images that you can stitch together into a single, large panorama. You take overlapping pictures with the camera guiding you, in a pattern like the one shown below.



Your panorama can be one or two rows high. When you are done taking photos, you load them onto your computer and stitch them together in the Panorama Stitcher software application included on your CD-ROM.

- 1 Turn the camera dial to .

NOTE

If you want to adjust any camera settings, such as white balance, sensitivity, or macro mode, turn the camera dial to  to see the View menu and adjust the settings, then turn the camera dial back to .

You see the VIDEO CLIP menu.

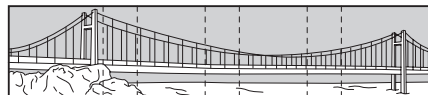


- 2 Press the button under **MODE CHANGE** three times. You see the panorama stitching menu with the word **STITCHING** on the screen.



- 3 Frame the first picture in your panorama. You capture the first row from left to right, as shown in the illustration below. If you are capturing two rows of images, start with the top row.

1 --> 2 --> 3 --> 4



4 Press the shutter button halfway to lock the auto focus and exposure. When the camera locks its settings, the photo capture light stops flashing and you see a green circle ● on the screen.

5 Press the button all the way down to capture the image.

6 Frame the next image in your panorama. The LCD screen shows a transparent section of your previous image. Make sure the entire transparent section is overlapping the same area in your next image.

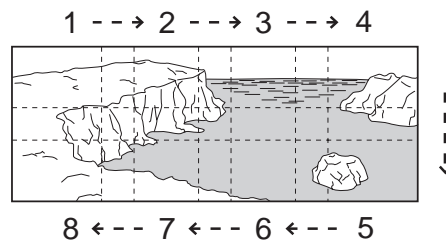


Follow steps 4 and 5 to capture the image. Repeat this step for all the images in the first row of your panorama.

7 If you are taking only a single row of images, press the button next to **Finish** when you are done.

If you are taking two rows of images, continue with step 8.

8 The second row of images goes from right to left, directly under the first row of images.



Press the button under the image number with the down arrow (in the bottom left corner of the LCD screen).

9 You see the transparent lower portion of the last image in the first row. Make sure the entire area is overlapping, and take a picture.



10 Using the transparent section of your previous image, frame the next image. Make sure the entire transparent area is overlapping the same area in the current image. Take the picture.

Repeat this step for all the images in the second row, making sure you capture the same number of pictures that you took for the first row.

- 11** Press the button next to **Finish** when you are done capturing pictures.

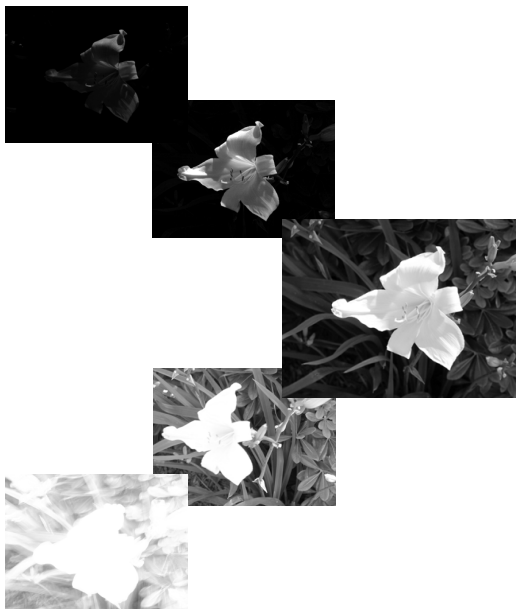
TIP

To capture a tall image, such as a building or a waterfall, turn the camera sideways. After you stitch your image in Panorama Stitcher, you'll need to rotate the final image in Image Expert or a similar program.

See Chapter 10 to load your pictures onto your computer and Chapter 13 to stitch your images together using Panorama Stitcher.

5

Adjusting Exposure and Color Settings



Sections in this Chapter:

Adjusting Exposure	5-2
Adjusting the Sensitivity Setting	5-7
Adjusting the White Balance Setting	5-8
Changing the Metering Method.....	5-11
Exposure and Color Tips.....	5-12

Light is one of the most important considerations for taking great photographs. Good color composition is also invaluable. Your PhotoPC 3100Z gives you complete control over exposure, color, and other lighting condition settings.

NOTE

*The settings in this chapter require that you set your user mode to **Manual** or **Program**. See page 1-10 to change the user mode.*

Adjusting Exposure



Your camera normally adjusts exposure automatically. However, you may want to increase the exposure setting to lighten your picture or if you're taking a picture of an object against a bright background (where your subject may be underexposed), such as sand or snow on a sunny day. Similarly, you may want to decrease exposure to darken the picture, or if you're taking a picture against a dark background (where your subject may be overexposed).

With the PhotoPC 3100Z, you can select automatic exposure settings, or you can fine-tune the exposure manually by setting the shutter speed and aperture setting.



Changing the Automatic Exposure Value


The Exposure Value (EV) is a combination of aperture, shutter speed, and flash settings that adjust the camera's automatic exposure to lighten or darken the image.

NOTE

The flash is not affected by the exposure value setting when it is set to  forced flash or  flash off, or when you're using an optional external flash.

To change the automatic exposure value:

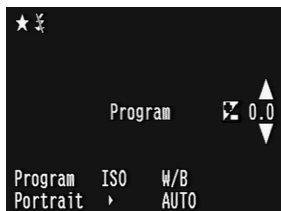
- 1 Make sure that the camera is set to Program or Manual user mode. (See page 1-10 for details.)
- 2 Turn the camera dial to  or .

If you are taking pictures using the viewfinder (with the camera dial set to ) , press the **MENU** button to see the Viewfinder menu.

If you are taking pictures with the LCD screen, you see the View menu with a preview of your image.

- 3 Press the button next to the up arrow to increase the exposure setting, or the button next to the down arrow to decrease it.

In Program mode, you can select from nine settings in increments of 0.5, from -2.0 to $+2.0$ EV.



Viewfinder



LCD Screen

In Manual mode, make sure the exposure setting is **Auto Exposure**, **Aperture Priority**, or **Shutter Priority**. You can choose from 21 settings in increments of 0.2, from -2.0 to $+2.0$ EV.

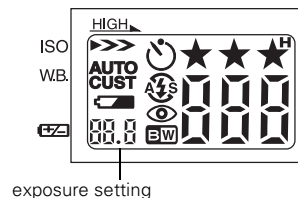


Viewfinder



LCD Screen

The setting appears in the status display panel.




Setting Shutter Speed and Aperture

Experienced photographers can set the exposure manually by adjusting the shutter speed and aperture settings.

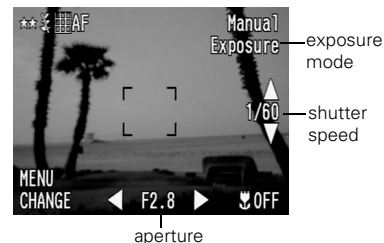
NOTE

To set either the aperture setting or the shutter speed setting and let your camera automatically determine the other setting, you can use the Aperture Priority settings as described on page 5-5, or the Shutter Priority settings as described on page 5-6.

To adjust the settings:

- 1 Make sure that the camera is set to Manual user mode.
(See page 1-10 for details.)
- 2 Turn the camera dial to .

- 3 Press the button next to the exposure mode to change it to **Manual Exposure**.



- 4 Press the button next to the up arrow to increase shutter speed, or the button next to the down arrow to decrease it. You can select shutter speeds between 1/1000 and 8. (The range varies depending on your aperture setting.)
- 5 Press the buttons under the left and right arrows to change the aperture setting. You can choose F2, F2.3, F2.8, F4, F5.6, or F8. (You may not be able to choose every setting, depending on your shutter speed setting.)



NOTE


*The camera detects the lighting conditions and warns you when exposure settings are outside the ideal range. If you see **EV!** on the LCD screen, your image may be under- or overexposed. Suggested exposure settings are also shown on the LCD screen.*

Using Aperture Priority Settings

You may want to select a specific aperture setting for a desired effect. For example, you can set your camera to a higher aperture setting (smaller opening), such as F8, to sharpen your subject and soften the background. The camera then automatically sets the shutter speed based on the lighting conditions.

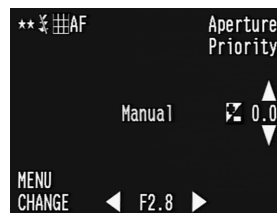
To set the aperture and let the camera automatically determine the shutter speed:

- 1 Make sure that the camera is set to Manual user mode.
- 2 Turn the camera dial to  or .

If you are taking pictures using the viewfinder (with the camera dial set to ) , press the **MENU** button.

If you are taking pictures with the LCD screen, you see the View menu.

- 3 Press the button next to the exposure mode to change the setting to **Aperture Priority**.



Viewfinder



LCD Screen

- 4 Press the buttons under the right and left arrows to change the aperture setting. (You can choose F2, F2.3, F2.8, F4, F5.6, or F8.)


When you press the shutter button half way down to focus the camera, the camera shows the exposure settings at the top of the LCD screen.

To have the camera select a lighter or darker range for your picture with a slower or faster shutter speed, you can change the automatic exposure value. (See page 5-2.)

Using Shutter Priority Settings

You may want to select a specific shutter speed setting for a desired effect. For example, you can set your camera to a faster shutter speed, such as 1/500, to capture your subject in motion. You might select a slow shutter speed, such as 4, to capture the stars at night. The camera then automatically sets the aperture based on the lighting conditions.

To set the shutter speed and let the camera automatically determine the aperture setting:

- 1 Make sure that the camera is set to Manual user mode. (See page 1-10 for details.)
- 2 Turn the camera dial to . You see the View menu.
- 3 Press the button next to the exposure mode twice to change the setting to Shutter Priority.



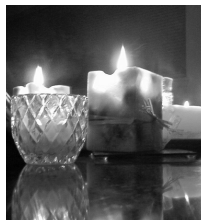
- 4 Press the buttons under the right and left arrows to change the shutter speed setting. (You can choose from a range of settings between 1/500 and 8.)

When you press the shutter button half way down to focus the camera, the camera shows the exposure settings at the top of the LCD screen.

You can change the automatic exposure value to have the camera select a lighter or darker range for your picture with a slower or faster shutter speed. (See page 5-2.)

Adjusting the Sensitivity Setting

With the PhotoPC 3100Z's high sensitivity settings, you can take pictures of fast-moving subjects, or indoor or low light pictures without a flash. You can set the sensitivity from the camera's standard ISO equivalent of 100 to an ISO equivalent of 200 or 400.



The arrow icons below **ISO** indicate the sensitivity setting:

- ▷ The standard setting is equivalent to ISO 100. This is the recommended setting for most pictures.
- ▷▷ The high sensitivity setting is equivalent to ISO 200.
- ▷▷▷ The super high sensitivity setting is equivalent to ISO 400.

NOTE

Image quality is lower when you use high sensitivity settings.

To adjust the sensitivity setting:

- 1 Make sure the camera is set to Program or Manual user mode. (See page 1-10 for instructions.)

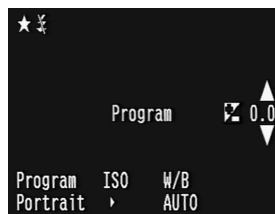
- 2 Turn the camera dial to or .

If you are taking pictures using the viewfinder (with the camera dial set to) , press the **MENU** button.

If you are taking pictures with the LCD screen, you see the View menu with a preview of your image.

- 3 Do one of the following:

- ▷ If the user mode is set to Program, press the button under **ISO** to change the sensitivity setting.

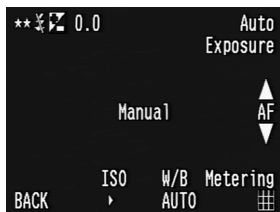


Viewfinder



LCD Screen

- If the user mode is set to Manual, press the button under **MENU CHANGE**. You see one of the following screens. Press the button under **ISO** to change the sensitivity setting.



Viewfinder



LCD Screen

Adjusting the White Balance Setting



The PhotoPC 3100Z adjusts white balance automatically to ensure color accuracy. However, you may want to change this setting for lighting conditions or for special effects.


You can select the following white balance settings:

- AUTO** Adjusts the white balance of your pictures automatically. This is the recommended setting for most pictures.
- FIX** Locks the white balance setting at 5200 °K. This setting gives your pictures a warmer appearance under fluorescent lighting. It's also a good choice for retaining the reds in a sunset or sunrise.
- CUST** Lets you customize the white balance setting. See page 5-10 to set the custom white balance.

NOTE

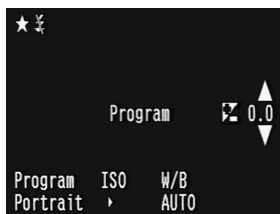
You must set the custom white balance in the Shot **SETUP** menu for the **CUST** (custom) setting to appear as an option.

- 1 Make sure the camera is set to Program or Manual user mode. (See page 1-10 for instructions.)
- 2 Turn the camera dial to  or .

If you are taking pictures using the viewfinder (with the camera dial set to ) , press the **MENU** button to see the Viewfinder menu.

If you are taking pictures with the LCD screen, you see the View menu with a preview of your image.

- 3 Do one of the following:
 - If the user mode is set to Program, press the button under the W/B setting to select **FIX** or **CUST** (custom).



Viewfinder

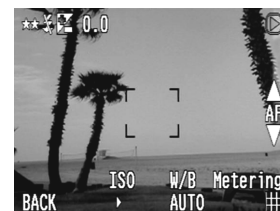


LCD Screen

- If the user mode is set to Manual, press the button under **MENU CHANGE**. You see one of the following screens. Press the button under the W/B setting to select **FIX** or **CUST**.

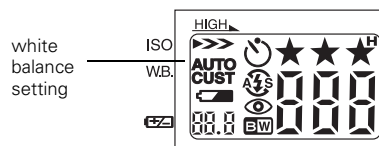


Viewfinder



LCD Screen

The white balance setting, which appears in the status display panel next to the **W.B.** mark, remains in effect until you turn off the camera.



NOTE

When nothing appears next to **W.B.** on the display panel, the camera is in fixed white balance mode.

Setting the Custom White Balance

- 1 Remove the camera's lens cap and press the **POWER** button to turn on the camera.
- 2 Turn the camera dial to **SETUP** to display the **SETUP** menu. If necessary, change to Program or Manual user mode.
- 3 Press the button next to **Shot SETUP** to go to the **Shot SETUP** menu.
- 4 Press the button below **New W/B**.
- 5 You see a screen asking you if you want to save a new setting. Press the button next to **Yes** to save a new custom white balance setting.

The camera's lens moves out (if it isn't already out). You see a message and a framed area that the camera's lens uses to set the white balance.






- 6 Focus the camera on a piece of white paper, or some other object by which to set the white balance, and press the shutter button to save the setting.
- 7 Press the button under **BACK** to return to the main **SETUP** menu.

Changing the Metering Method

If you're using Manual mode, your camera lets you choose between matrix metering and spot metering. With matrix metering, the camera automatically samples light from the entire image area and determines the correct exposure. You can use spot metering to choose a point, such as your subject's face, to determine the exposure.

To change the metering system:

- 1 Make sure that the camera is set to Manual user mode.
(See page 1-10 for details.)
- 2 Turn the camera dial to  or .

If you are taking pictures using the viewfinder (with the camera dial set to ) , press the **MENU** button to see the Viewfinder menu.

If you are taking pictures with the LCD screen, you see the View menu with a preview of your image.



- 3 Press the button under **MENU CHANGE**. You see one of the following screens. The current metering setting is in the lower right corner.



Viewfinder



LCD Screen

- 4 Press the button next to **Metering** to change the setting to spot  or matrix  metering.

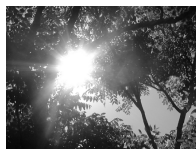
When you press the shutter button half way down to focus the camera and set the exposure, make sure the lens is centered on the area from which you want the camera to read the light.

Exposure and Color Tips

Getting the right lighting in your shots can be challenging. These tips provide suggestions for various conditions.

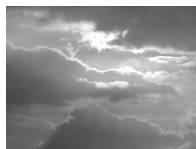
If you are taking pictures in bright sunlight:

- ▶ Reduce the exposure setting.
- ▶ Use a fast shutter speed or smaller aperture setting.
- ▶ Use an optional filter with the camera's included lens adapter to cut down on excessive light.



If the sky is cloudy:

- ▶ Increase the exposure setting.
- ▶ Try using fixed white balance.
- ▶ Increase the sensitivity.
- ▶ If there is complete cloud cover, avoid taking landscape photos. Portraits and closer shots are better choices under cloudy conditions.



If you are capturing a sunset or sunrise:

- ▶ Use the fixed white balance setting.
- ▶ Adjust exposure settings for different effects.
- ▶ Take several shots at different times to capture the changing colors. (To do this automatically, set up interval shooting as described in Chapter 3.)



If you are taking pictures in low light or at night:

- ▶ Increase the sensitivity setting.
- ▶ Increase the exposure setting.
- ▶ Use a wide aperture or slow shutter speed setting to let in more light.
- ▶ If your subject is in the shade with a sunny background, try using spot metering and focusing the camera on your subject.



- ▶ For photographs taken at night, use slow synchronized flash mode. The leading setting sets off the flash first, then exposes the subject and takes the picture. In this mode, hold the camera still or use a tripod (see Appendix B). The trailing setting flashes at the end of the exposure, allowing you to capture background motion while freezing your subject. (See Chapter 2 to change the slow synchronized flash setting to leading or trailing.)

If you are taking photographs under fluorescent lighting:

- ▶ Use custom or fixed white balance.
- ▶ If you need to take a portrait under fluorescent or other unflattering indoor light, use the fixed or user-defined white balance.



If you are taking portrait photos:

- ▶ Try using spot metering. Make sure you center your subject when you lock the exposure with the two-step shutter. Then you can move the subject off-center while you are holding the shutter button down.
- ▶ Try using the **Portrait** setting in Program mode.
- ▶ Be aware of lighting conditions and how they affect the appearance of your subject. Natural, outdoor light in the early morning or late afternoon or light under cloudy skies is more flattering than direct sunlight or fluorescent light.
- ▶ Use the red-eye reduction flash mode for portraits. If you are taking portraits in bright light, you still may want to use the flash to correct for the camera's exposure adjustments.



6

Playing Back Photos




Sections in this Chapter:

Playing Back Pictures One by One	6-2
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The LCD screen lets you play back your pictures one-by-one or in groups of four or nine. You can magnify or delete selected pictures and customize playback features. You can also play back and delete video clips and sounds.

Playing Back Pictures One by One

To see the last picture you took on the LCD screen, turn the camera dial to  and press the **POWER** button.





Press the button next to the right arrow to see the earliest picture taken. Continue pressing the button to view the pictures in order. Press the button next to the left arrow to move backward through the pictures. Zoom in on your image using the **T** button (see page 6-7 for details).

NOTE

After a few minutes of inactivity, the camera automatically shuts off to conserve battery power. If this happens, press any button on the back of the camera to “wake” the camera. If you are using the AC adapter, the camera shuts off after 15 minutes.

Playing Back Multiple Pictures

You can play back your pictures in Multi mode to view small “thumbnail” versions of either four or nine pictures at once.


- 1 Turn the camera dial to  and press the **POWER** button. You see the last picture you took on the screen.
- 2 Press the button below **Multi**. Small thumbnail images of the last four pictures you took appear on the screen, with the currently selected image framed in white.
- 3 If you want to display nine pictures at once, press the button under **1/9**.
- 4 Press the arrow buttons to move the white selection frame through the images on screen, or hold one of the buttons down to move through the images quickly.

When the frame passes the first or last image, the previous or next set of images is displayed.

- 5 To switch back to displaying one picture at a time, press the button under 1/1.

Locking and Unlocking Photos

The lock feature allows you to keep your images from being accidentally deleted.

- 1 Turn the camera dial to  and press the **POWER** button.
- 2 Press the buttons next to the right and left arrows to move the frame to the photo you want to lock.
- 3 Press the button under **Lock**. A lock icon appears in the top left corner of the screen and the word **Lock** changes to **Unlock**. Repeat steps 2 and 3 to select and lock any additional images.



- 4 To unlock a photo, press the button under **Unlock**. The lock icon disappears from the top left corner of the screen and the word **Unlock** changes back to **Lock**. Select any additional locked images and repeat this step to unlock them.

Deleting Pictures

The LCD screen provides different methods for deleting images as you play them back:


- ▶ Delete the currently displayed picture
- ▶ Delete all the photos in the camera
- ▶ Lock selected pictures to protect them from deletion, then delete all other photos in the camera

You can also delete images through your software when the camera is connected to your computer (see Chapter 10).

NOTE

Video clips must be deleted from the video clip playback menu (see page 6-10). To delete everything in memory at once, you can format the memory card (see page 1-9).

Deleting the Currently Displayed Picture

- 1 Set the camera dial to , and press the **POWER** button. You see the last picture you took.
- 2 Press the buttons next to the right and left arrows to scroll to the image you want to delete.




NOTE

To make choosing images easier, you can display four or nine images at a time by pressing the button under **Multi** once or twice.

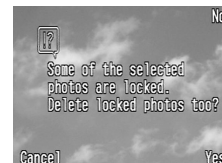
- 3 Press the button next to **Delete**. A confirmation message appears.
- 4 Press the button next to **Yes** to delete the image, or the button next to **No** to cancel.

Deleting All Pictures

- 1 Set the camera dial to , and press the **POWER** button.
- 2 Press the button next to **Select Image**.
- 3 Press the button next to **Delete All** to delete all the images in your card. A confirmation message appears.
- 4 Press the button next to **Yes** to delete the images, or the button next to **No** to cancel.

NOTE


If any images are locked, you see a screen like the one shown: To delete all the photos, press the button next to **Yes**. To delete only unlocked photos, press the button next to **No**. Press the button under **Cancel** if you don't want to delete any images. See page 6-3 to unlock images.



- 5 Press the button under **BACK** to return to the main playback menu.

Adding Audio Recordings

You can add audio recordings to images stored on your memory card.

- 1 Turn the camera dial to .
- 2 Press the buttons next to the right and left arrows to move to the photo to which you want to add a recording. (If you're displaying multiple images, you'll see a white frame around the currently selected photo.)
- 3 Press the button under **MENU CHANGE** until the screen changes, then press the button under **SOUND**.

You see the Sound menu:

- 4 Press the button next to **Sound Rec**. A ten second countdown of the recording time appears on the screen.



NOTE


*If there's already a recording on the selected photo, a confirmation message appears. To erase the old recording and make a new one, press the button next to **Yes**. Or press the button next to **No** to cancel.*

- 5 Speak clearly into the microphone on the back of the camera. Press the button under **Stop** to stop recording.

A microphone icon appears in the upper left corner of the image to indicate that a recording has been added.
- 6 Press the button under **BACK** twice to return to the main playback menu.

Playing Back Audio Recordings

Your camera has a speaker that plays back audio recordings.


- 1 Set the camera dial to , and press the **POWER** button.
- 2 Press the buttons next to the right and left arrows to move to the photo for which you want to hear a recording.
- 3 Press the button under **MENU CHANGE**.
- 4 Press the button under **SOUND**. You see the Sound menu.
- 5 Press the button next to **Sound Play**. To stop the playback, press the button next to **Sound Stop**.
- 6 Press the button under **BACK** twice to return to the main playback menu.

TIP

To adjust the volume on your camera, see page 7-4.

Deleting Audio Recordings

You can also delete audio recordings that you've added to the pictures on your memory card.


- 1 Set the camera dial to , and press the **POWER** button.
- 2 Use the buttons next to the right and left arrows to select an image. You'll see a microphone icon in the upper left corner if the image has a recording attached. (If you're displaying multiple images, you'll see a white frame around the currently selected photo.)
- 3 Press the button under **MENU CHANGE**.
- 4 Press the button under **SOUND**. You see the sound menu:



- 5 Press the button under **Delete Sound** to delete the recording. A message appears asking you to confirm the deletion (and warns you if the picture is locked).
- 6 Press the button next to **Yes** to delete the sound, or next to **No** to cancel.
- 7 Press the button under **BACK** twice to return to the main playback menu.

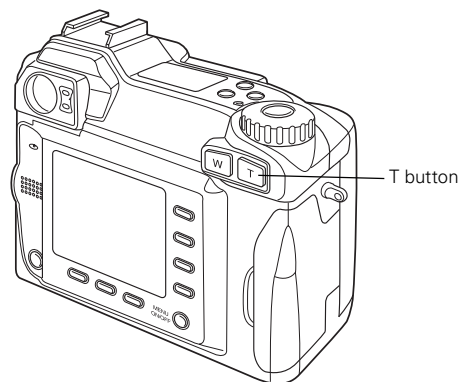
Magnifying a Picture

You can zoom in to enlarge your image on the LCD screen and view it in greater detail. You can also use the camera's buttons to scroll the image.

- 1 Turn the camera dial to  and press the **POWER** button. You see the camera's playback menu.



- 2 Use the buttons next to the right and left arrows to select the image you want to enlarge, then press the **T** button to zoom in.




A magnified view of the picture appears. An icon in the top left corner of the screen indicates which area of the image is currently shown and the zoom level appears at the top of the screen.



- 3 To scroll through different areas of the magnified image, press the buttons next to the up and down arrows to move up or down, or the buttons under the left and right arrows to move left or right. (Hold the button down to scroll quickly in one direction.)
- 4 To zoom back out, press the W button. If you zoom all the way out, you return to the playback menu.
- 5 To exit the screen, press the button under **BACK**.

Playing Back Video Clips

You can play back video clips that you capture on your PhotoPC 3100Z. You can play them forward or backward, delete them, and use various playback controls.

- 1 Turn the camera dial to . You see the last picture you took on the LCD screen. (If you haven't taken any photos, you see a gray screen with the following message: **There is no image.**)
- 2 Press the button under **MENU CHANGE**.

- 3 Press the button next to **VIDEO CLIP**. You see the video clip playback screen.
- 4 Press the buttons next to the left and right arrows to select a video clip.
- 5 If you want to view multiple thumbnails of your video clips, press the button under **Multi**. Press it once to view four thumbnails or twice to view nine thumbnails. Press the button a third time to view one image at a time again.
- 6 If you want to view the video clip backward, press the button under **Fwd** (forward). **Fwd** changes to **Rev** (reverse).



NOTE

You can't select reverse playback if you are viewing multiple thumbnails.

- 7** Press the button next to **Play**.
You see your video clip playing
in a screen like the following:



- 8** To slow down the playback,
press the button next to
Change Speed. Press it again to go back to normal
playback speed.
- 9** Press and hold the button next to the right arrows to fast
forward the video (release the button to play), or press
and hold the button next to the left arrows to rewind the
video (release the button to play).

- 10** To pause the video, press the
button under **Pause**.



You can do the following while the video is paused:

- ▶ Press the button next to **Fwd** to move the clip
forward one frame.
 - ▶ Press the button under **Rev** to move the clip
backward one frame.
 - ▶ Press and hold the button next to the right arrows
to fast forward (release the button to pause).
 - ▶ Press and hold the button next to the left arrows to
rewind (release the button to pause).
- 11** Press the button under **Restart** to continue playing the
video.
- 12** Press the button under **Quit** to stop the video clip and
return to the video clip playback screen.

Deleting a Video Clip

- 1 Turn the camera dial to . You see the last picture you took on the LCD screen. (If you haven't taken any photos, you see a gray screen with the following message: There is no image.)
- 2 Press the button under **MENU CHANGE**.
- 3 Press the button next to **VIDEO CLIP**. You see the video clip playback screen.
- 4 Press the buttons next to the left and right arrows to select a video clip.
- 5 Press the button next to **Delete** to delete the selected video clip.
- 6 You see a confirmation screen. Press the button next to **Yes** to delete the video clip. Press the button next to **No** if you don't want to delete it.



Viewing Picture Information

You can use the LCD screen to view detailed information about individual images, including date and time taken, shutter speed, exposure settings, aperture and white balance settings, and flash settings.

To display image information:


- 1 Turn the camera dial to , then press the button under **MENU CHANGE**. You see the following:
- 2 Press the button next to **INFO** to display information for the currently selected image.
- 3 Press the button under **BACK** twice to return to the main playback screen.



Image No:100-0004 (e)
Date:04/23/2001 13:29
Shutter Speed:1/247
Aperture:F2.5
Exposure adjustment: 0.0
Flash:OFF/
W/B:AUTO
Others: > D-ZOOM
BACK

Playing Your Pictures as a Slide Show

You can use the LCD screen to play back your pictures in a continuous “slide show.” You can even control the slide show’s speed and pauses.

- 1 Turn the camera dial to . Then press the button under **MENU CHANGE**.

- 2 Press the button under **SLIDE SHOW**. You see this screen:



- 3 If you want to play your audio recordings with the images during the slide show, press the button next to the sound setting to turn it to **Sound On**.

- 4 To rotate an image 90° to the left, press the button under **Rotate**. To rotate an image 90° to the right, press the button under **Rotate** twice. To rotate the image back to its original orientation, press the button under **Rotate** a third time. Select any other images and repeat this step to rotate them.

- 5 Press the button next to **Start** to begin the slide show.

To pause the slide show, press the button under **Pause**. Press the same button (under **Restart**) to restart it.

While the slide show is paused, you can move backward through the slides by pressing the button under **Rev**. You can move forward by pressing the button next to **Fwd**.

To stop the slide show, press the button under **Quit**.

NOTE

At the end of the slide show, a black screen with the message “fin!” appears. Then the camera shuts off. Press any button on the back of the camera to turn it back on in playback mode.

7

Adjusting Camera Settings

Sections in this Chapter:

Setting the Time and Date	7-1
Setting the Auto Power Off Time	7-2
Turning Camera Sounds On or Off.	7-3
Setting the Camera Volume	7-4
Setting the Language	7-4
Adjusting the LCD Brightness	7-5
Adjusting the Viewfinder Focus	7-5

Your camera has many options that you can change to configure the camera to work exactly the way you want.

Setting the Time and Date

The camera remembers the time and date settings you made when you first set up your camera, unless it goes without battery power for an extended period of time.

NOTE

The camera does not automatically adjust the time for changes between daylight savings time and standard time.

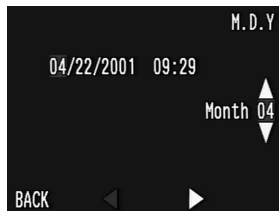
To reset the time and date:

- 1 Turn the camera dial to **SETUP** and press the **POWER** button to display the **SETUP** menu.

You see the camera's date and time settings in the upper right corner of the screen.



- 2 Press the button next to the time and date to display the following screen. The first item is highlighted in red.



- 3 Press the buttons next to the up and down arrows to adjust the setting, then press the button under the right arrow to highlight the next item.
- 4 Repeat step 3 for each item you want to change. (To go back to a previous item, press the button under the left arrow.)
- 5 Press the button next to the date display format to change it to **M.D.Y.** (12/31/2001), **D.M.Y.** (31/12/2001), **Y.M.D.** (2001/12/31).

- 6 When you're done, press the button under **BACK** to save the settings and return to the **SETUP** menu.

Setting the Auto Power Off Time

The automatic power off feature saves battery power by automatically putting the camera into sleep mode when it's idle for a designated period of time. You can set the camera to turn off after 30 seconds, one minute, or five minutes.

To change the power off interval:

- 1 Turn the dial to **SETUP** and press the **POWER** button to display the **SETUP** menu.
- 2 Press the button below **Camera SETUP** to go to the **Camera SETUP** menu.

The current power off interval appears in the upper right corner of the screen.



- 3 Press the button next to the current setting to select a new setting.
- 4 Press the button under **BACK** to return to the SETUP menu.

NOTE

Automatic power off settings are in effect only when you're using batteries to power the camera. In playback mode, the camera shuts off after 5 minutes. When your camera is connected to the AC adapter, it shuts off after 15 minutes.

Turning Camera Sounds On or Off

The camera clicks to let you know when an image has been captured and beeps whenever you press any of its buttons. To change the sound settings:

- 1 Turn the camera dial to **SETUP** to display the SETUP menu.
- 2 Press the button under **Camera SETUP**. You see the Camera SETUP menu.
- 3 Press the button under **Beep** to cycle through these choices:



Shutter The camera clicks when an image is captured.

Never Turns all sounds off.

Always The camera beeps whenever you press a button and clicks when the camera captures images.

Setting the Camera Volume

You can change the camera's volume for playing back audio recordings and alert sounds.

- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button under **Camera SETUP**. You see the **Camera SETUP** menu.
- 3 Press the button next to **Volume** to change the setting to **Hi** or **Low**.
- 4 Press the button under **BACK** to return to the **SETUP** menu.



Setting the Language

You can choose from eight languages for information displayed on the LCD screen.

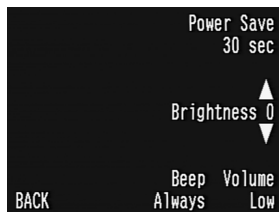
- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button under the **Language** icon to go to the **Language/Signal setup** menu.
- 3 Press the buttons under the arrows to highlight your desired language setting.
- 4 Press the button under **BACK** to save the setting and return to the **SETUP** menu.



Adjusting the LCD Brightness

To adjust the brightness of the LCD screen:

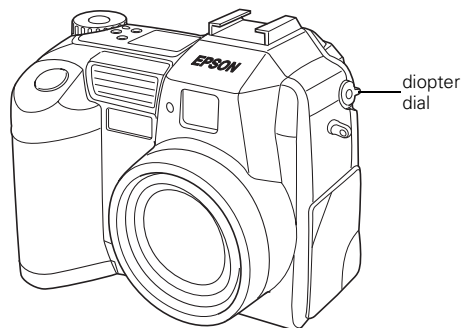
- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button under **Camera SETUP**. You see the **Camera SETUP** menu.
- 3 Press the buttons next to the up and down arrows to adjust the screen brightness.
- 4 Press the button under **BACK** to return to the **SETUP** menu.



Adjusting the Viewfinder Focus

You can adjust the viewfinder's focus using the diopter. This is useful if you wear glasses and want to remove them to take pictures with the viewfinder.

To adjust the focus, simply look through the viewfinder and move the diopter dial up or down until you have a clear view.



8

Selecting Images for Printing

Sections in this Chapter:

About the DPOF Standard	8-2
About PRINT Image Matching	8-2
Selecting Photos to Print	8-2
Deselecting All Photos	8-3
Adjusting Photos for Printing	8-3
Enabling an Index Print.	8-4

Your PhotoPC 3100Z includes a new print button feature that lets you select images and determine how many copies of each image you want to print using the Digital Print Order Format (DPOF) standard. The camera utilizes PRINT Image Matching technology, which gives you the best possible print. With these new features, it's easier than ever to print images from your digital camera,

without even turning on your computer. To print, all you need to do is insert your CompactFlash memory card into a printer with a card reader that recognizes DPOF or PRINT Image Matching files, select the paper size and type using your printer's controls, and press the print button on your printer.

NOTE

Some photo finishing labs and digital photo printers don't support the DPOF standard and PRINT Image Matching technology. Contact your local lab or read your printer documentation to see if you can print with these standards.

About the DPOF Standard

The Digital Print Order Format (DPOF) is a digital print standard that lets you create a file with the information a photo finishing lab needs to print your photos. You can also use DPOF files with DPOF-compatible photo printers. Simply use your camera's print button to select photos and the number of copies you want to print, and the camera stores the information in a DPOF file on your CompactFlash card.

About PRINT Image Matching




PRINT Image Matching sets the color space and gamma for your printed photos based on the unique qualities of your digital camera. The PRINT Image Matching program in your camera saves a file with print commands designed specifically for your camera's output. To use this feature, you must have a PRINT Image Matching enabled printer.

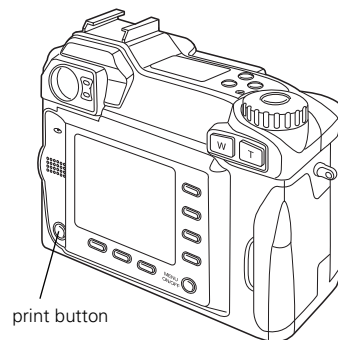
NOTE

PRINT Image Matching is available for JPEG photos only. If you don't have a printer that reads PRINT Image Matching data, the data is ignored.

Selecting Photos to Print


You can select photos when you view them in any of the camera's playback menus.

- 1 Turn the camera dial to  and press the **POWER** button.
- 2 Select a photo and press the green  print button on your camera.
- 3 If you want to print multiple copies of an image, press the button more than once. You can select up to 9 copies of each image.
- 4 To deselect an image, press and hold the green  print button until an icon with a 0 appears on the screen.



When you are done selecting images, you can adjust them and set up other printing information from the print menu. See page 8-3 for instructions.

Deselecting All Photos

- 1 Turn the camera dial to  and press the POWER button.

- 2 You see the PRINT IMAGE menu.


- 3 To deselect all the selected photos, press the button next to All Reset.



- 4 When you see a confirmation screen, press the button next to Yes to deselect all the photos. Press the button next to No to preserve your selections.


NOTE

If you have made any brightness or sharpness adjustments, they are not removed when you deselect all the images. To remove these adjustments, set them back to the standard setting, as described in the next section.

The numbers are set to 0 and the images appear in black and white. You can re-select images by pressing the  print button, as described in the previous section.

Adjusting Photos for Printing

You can adjust the brightness and sharpness of your JPEG photos for printing. These settings will be read by a PRINT Image Matching enabled printer. The adjustment settings do not change the appearance of the actual source image.


- 1 Set the camera dial to  and press the POWER button.
- 2 You see the PRINT IMAGE menu.

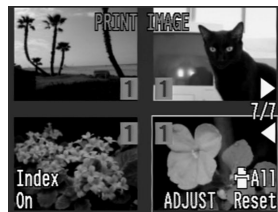


- 3 Press the button under **ADJUST**. You see the following menu.
- 4 Press the buttons next to Brightness and Sharpness to change their settings to **Std.** (standard), **High**, or **Low**.
- 5 Press the button next to the up arrow to increase the number of copies, or press the button next to the down arrow to decrease the number of copies.
- 6 Press the button under **BACK** to return to the main **PRINT IMAGE** menu. You see a yellow icon next to the number of copies in the corner of the image. (The icon does not appear if both settings are **Std.**)



Enabling an Index Print

- 1 Set the camera dial to  and press the **POWER** button.
- 2 You see the **PRINT IMAGE** menu.
- 3 Press the button next to the index setting to change it to **Index On**. Press the button again to turn the index print off.



Using Your Camera With Your Computer or Video Device

This section includes information about using your EPSON PhotoPC 3100Z camera and software to load your photos onto your computer and work with them. It also explains how to print out your photos, and present your photos on a television, VCR, or other device. The following chapters are included in this section:

- 9 Installing Software and Connecting
- 10 Getting Photos Into Your Computer
- 11 Getting Your Photos Into Documents
- 12 Printing Your Photos
- 13 Stitching Panoramas
- 14 Presenting Your Photos



For troubleshooting, maintenance, and reference information (including specifications), see the next section, “Troubleshooting and Reference.”

9 *Installing Software and Connecting*

Sections in this Chapter:

Installing the USB Storage Driver.	9-2
Installing Camera Software	9-3
Connecting the Camera to Your Computer	9-6
Reading Your Image Expert User's Guide	9-9

Before you can download pictures and video clips to your computer's hard drive, you need to install the PhotoPC 3100Z software and connect the camera to your computer.

NOTE

The PhotoPC 3100Z uses the USB storage class protocol which allows the camera to appear as a drive on your computer. This allows you to transfer your files without additional software.

The PhotoPC 3100Z CD-ROM includes this software:

- ▶ A USB storage driver which lets you download photos in Windows 98, Mac OS 8.6, or Mac OS 8.5.1. (If you have a newer version of the Mac OS or Windows, you don't need to install the USB storage driver.)
- ▶ Sierra Imaging Image Expert (with the QuickTime Player and Adobe Acrobat Reader) which lets you transfer, organize, and view your pictures, sounds, and video clips. It also lets you edit pictures and sounds.
- ▶ Panorama Stitcher which lets you stitch and print panoramas from multiple images.
- ▶ EPSON File Converter which lets you convert files (including presentation slides) into a file format that you can upload into your camera.

Installing the USB Storage Driver

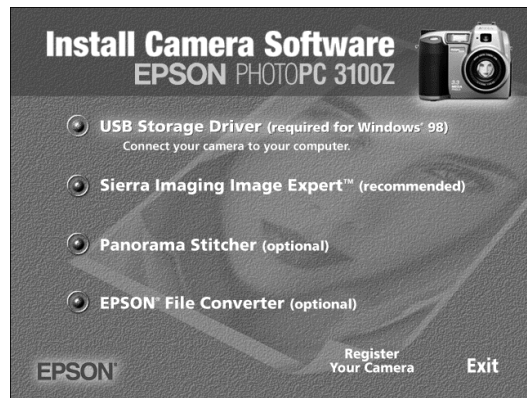
If you are using Windows 98, Mac OS 8.5.1, or Mac OS 8.6, you must install the USB storage driver before you can connect the camera to your computer and transfer files. Follow the steps in the appropriate section below.

If you are using Windows Millennium Edition (Me), Windows 2000, or Mac OS 9.0 through Mac OS 9.1, you don't need to install the storage driver, go to "Installing Camera Software" on page 9-3.

Installing the Driver in Windows 98

- 1 Insert the PhotoPC 3100Z CD-ROM in your computer's CD-ROM or DVD drive.
- 2 Double-click **My Computer**. Then double-click the **PhotoPC 3100Z** CD-ROM icon.
- 3 Double-click the **EPSON** icon.

- 4 When you see the following screen, click **USB Storage Driver**.



- 5 Follow the steps on the screen to install the USB Storage driver.
- 6 Restart your computer.

Now you are ready to install the recommended camera software. Go to page 9-3.

Installing the Driver in Mac OS 8.6 or Mac OS 8.5.1

- 1 Insert the PhotoPC 3100Z CD-ROM in your computer's CD-ROM or DVD drive.
- 2 If necessary, double-click the **PhotoPC 3100Z** CD-ROM icon to open the PhotoPC 3100Z window.
- 3 Double-click the **EPSON** icon.
- 4 From the Install screen, click **USB Storage Driver**.



- 5 Click the **Install** button and click **Continue**.
- 6 When the installation is complete, restart your computer.

Now you are ready to install the recommended camera software, as described below.

Installing Camera Software

You can install the software on your Windows 98, Windows Me system, Windows 2000 system, or on your Macintosh with Mac OS 8.5.1 through 9.1. (See page C-7 for minimum system requirements.)

NOTE

- ▶ *If you are asked to restart your computer after any installation, you can cancel and wait to restart until you have installed all of the PhotoPC 3100Z applications.*
 - ▶ *If you are using Windows 2000 and are unable to install the software, contact your system administrator for assistance.*
-

Installing in Windows

- 1 Insert the PhotoPC 3100Z CD-ROM in your computer's CD-ROM or DVD drive.
- 2 Double-click **My Computer**. Then double-click the **PhotoPC 3100Z** CD-ROM icon.

- 3 Double-click the EPSON icon.
- 4 When you see the following setup screen, click **Sierra Imaging Image Expert**.



- 5 Follow the instructions on the screen to install Image Expert.

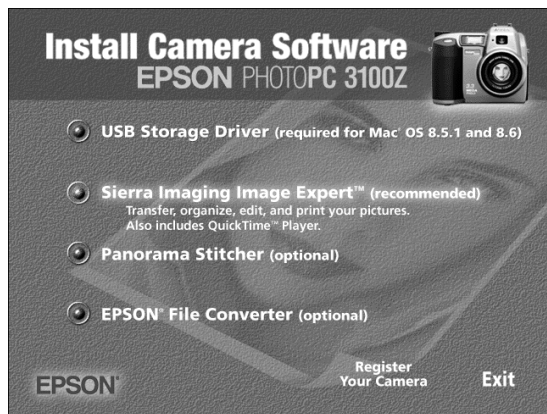
NOTE

*Make sure to check **Install the Adobe Acrobat Reader** if you don't already have it on your system. You'll need this program to read the electronic Image Expert User's Guide.*

- 6 If you chose to install Adobe Acrobat Reader, follow the steps on the screen to install it.
- 7 The QuickTime Player installation starts. Follow the steps on the screen. When you see the QuickTime registration screen, leave the fields blank and click **Next**. (You only need to register if you upgrade; see page 11-8.)
- 8 When the installation is complete, you return to the Install Camera Software screen.
- 9 Click **Panorama Stitcher** and follow the instructions on the screen, if you want to install it.
- 10 Click **EPSON File Converter** and follow the instructions on the screen, if you want to install it.
- 11 When you are finished installing software, click **Exit** and then click **OK**.
- 12 Restart your computer.

Installing on a Macintosh

- 1 Insert the PhotoPC 3100Z CD-ROM in your computer's CD-ROM or DVD drive.
- 2 If necessary, double-click the **PhotoPC 3100Z** CD-ROM icon to open the PhotoPC 3100Z window.
- 3 Double-click the **EPSON** icon.
- 4 From the Install screen, click **Sierra Imaging Image Expert**.



- 5 Follow the instructions on the screen to install Image Expert.

- 6 The QuickTime Player installation starts. Follow the steps on the screen. When you see the QuickTime registration screen, leave the fields blank and click **Continue**. (You only need to register if you upgrade; see page 11-8.)
- 7 When the installation is complete, click **Quit**. You return to the Install Camera Software screen.
- 8 Click **Panorama Stitcher** and follow the instructions on the screen, if you want to install it.

NOTE

Panorama Stitcher requires Mac OS 8.6, or later.

- 9 Click **EPSON File Converter** and follow the instructions on the screen, if you want to install it.
- 10 When you are finished installing software, click **Exit** and then click **OK**.
- 11 If you don't already have Adobe Acrobat Reader on your system, double-click the **Acrobat Reader Installer** icon (in the PhotoPC 3100Z window) and follow the steps on the screen to install Acrobat Reader.
- 12 Restart your computer.

Connecting the Camera to Your Computer

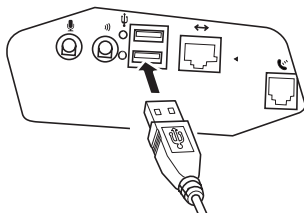
This section describes how to connect the camera to a USB-compatible PC or Macintosh using the USB cable.

Note the following before you start:

- ▶ You can conserve battery life by using the optional AC adapter while the camera is connected to your computer. See page B-2 for instructions.
- ▶ When you connect the camera, make sure your system is not exposed to sources of electromagnetic interference, such as stereo speakers or the base units of cordless telephones.

1 Locate the USB cable that came with the camera.

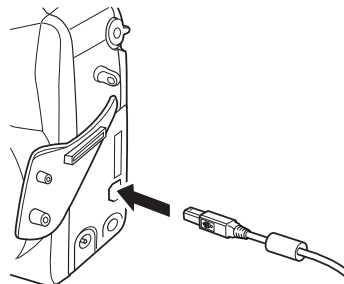
2 Plug the connector on the USB cable into the USB port on your computer, or into a port on a USB hub.




NOTE

Although you can use a USB hub, it's recommended that you connect the camera directly to the computer's USB port.

3 Open the connector cover on the side of the camera. Then insert the connector on the other end of the USB cable into the camera's USB interface port.



4 Turn on your computer, then turn on the camera and turn the camera dial to .

Installing Your Windows 98 USB Driver

If you're connecting to a Windows 98 system, make sure you've completed the steps on page 9-2 to install your USB storage driver. The first time you connect the camera to your computer, you'll see the Add New Hardware Wizard. Follow the steps in the wizard to let your computer recognize the camera. You may need to insert your Windows 98 system disk during the installation.

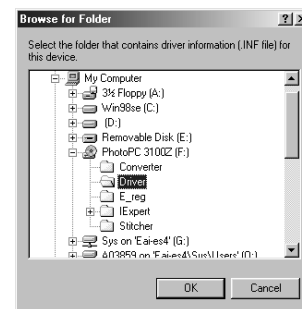
- 1 Insert the PhotoPC 3100Z CD-ROM in your computer's CD-ROM or DVD drive.
- 2 At the first screen in the Add New Hardware Wizard, click **Next**.



- 3 Select **Search** for the best driver for your device. Then click **Next**.
- 4 Select **Specify a location**.



- 5 Click **Browse** and double-click the **PhotoPC 3100Z** CD-ROM icon.
- 6 Click the **Driver** folder to select it and click **OK**.



- 7 Click **Next**. The wizard locates the driver.



- 8 Click **Next** to install the driver.

- 9 When installation is complete, click **Finish**.

- 10 If you see this screen after you complete the Add New Hardware Wizard, click **Cancel** and install the USB Storage Driver from your CD-ROM, following the steps on page 9-2.



Reading Your *Image Expert User's Guide*

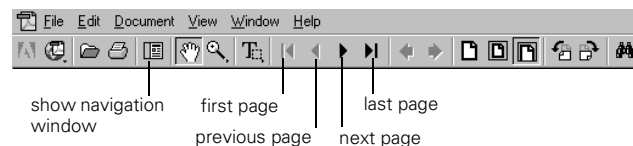
Image Expert includes an electronic manual, the *Image Expert User's Guide*, that you can view on your computer or print out.

You read the manual using Adobe Acrobat Reader. If you don't already have Acrobat Reader, version 3.0 or later on your system, follow the steps under "Installing in Windows" on page 9-3 to install it on your Windows system along with Image Expert. Or, follow the steps under "Installing on a Macintosh" on page 9-5, to install Acrobat Reader on your Macintosh.

To read the manual in Windows, click **Start**, point to **Programs**, **Image Expert**, then click **Image Expert User's Guide**.

To read the manual on a Macintosh, double-click the **Image Expert User's Guide** icon on the PhotoPC 3100Z CD-ROM. You can also copy the manual to your hard drive.

When you open a manual in Acrobat Reader, you see a toolbar like this:



With Acrobat Reader, you have several ways to navigate through text:

- ▶ Use the navigation window on the left side of the screen to move quickly to the topic of your choice.
- ▶ Use the arrow buttons in the toolbar or the vertical scroll bar on the right side of the document to move through a manual. (The box to the left of the scroll bar displays the current page number.)
- ▶ Click links, which are usually underlined or displayed in a different color, to jump to a specific section.

For more information, see your Acrobat Reader online guide.

10

Getting Photos Into Your Computer

Sections in this Chapter:

Copying Files Directly From Your Memory Card 10-1

Transferring Files With Image Expert. 10-3


When you're finished taking pictures, you can connect the camera to your computer and transfer your photos, sound recordings, and video clips. Then you can use the files on your Web site, in presentations, or in just about anything you create on your computer.

NOTE

If your computer has a Type II PCMCIA card (PC card) slot, you can transfer your pictures by copying them directly from your memory card with an optional adapter. See page B-6 for instructions.

Copying Files Directly From Your Memory Card

Whether you connect your camera with USB, insert your memory card into a PC card slot with an adapter, or insert your card into a memory card reader, your computer sees your CompactFlash card as an additional drive. This lets you copy your files directly from the memory card to your computer.

- 1 If you are connecting with USB, make sure the camera is turned on, connected to your computer, and the camera dial is turned to .

If you are inserting a memory card, insert your card into the card reader or insert the PC card adapter into the PC card slot.

NOTE

*If you installed Image Expert, the Camio Viewer appears when you connect the camera. Click **Cancel** to close the Camio Viewer. (To disable the Camio Viewer, see your electronic Image Expert User's Guide.)*

- 2** In Windows, double-click **My Computer**. You see a drive icon for your camera or card. Double-click the drive icon.

On a Macintosh, you see the **EPSON_DSC** drive icon on your desktop. Double-click the drive icon.

- 3** You see two or more folders:
- ▶ Double-click the **DCIM** folder, then double-click the **100Epson** folder to access your photo files and associated sound files.
 - ▶ Double-click the **Movie** folder to access any QuickTime movie files that you captured.

- 4** Click any files you want to copy to the computer and drag them to the folder where you want to store them. (To select multiple files, hold down the **Shift** or **Ctrl** key in Windows, or the **Shift** key on a Macintosh.)

CAUTION

If you delete any files in the 100Epson or Movie folders, they are deleted from the camera's memory card.


- 5** In Windows, turn off the camera and disconnect it from your computer or remove the card.

On a Macintosh, drag the icon for the camera or card to the Trash. Turn off your camera and disconnect it or remove the card.

Transferring Files With Image Expert

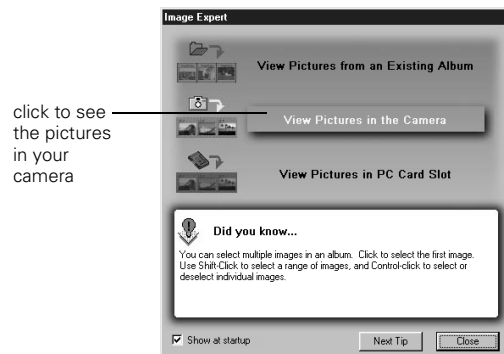
One method of getting photos from your camera's memory card into your computer is to use the Image Expert software. This lets you view small thumbnail images of your pictures and then quickly transfer them to an album (folder) on your hard disk drive.

To transfer your files:

- 1 Make sure the camera is turned on and connected to your computer, as described on page 9-6. Turn the camera dial to .
- 2 In Windows, click **Start**, point to **Programs**, **Image Expert**, and click **Image Expert - PhotoPC 3100Z**. If you see the Image Expert Quick Tour screen, click **Close**.

On a Macintosh, open the Image Expert - PhotoPC 3100Z folder and double-click the Image Expert icon.

You see a window like the following:








- 3 In Windows, click **View Pictures in the Camera**.

On a Macintosh, click **View Pictures in PC Card Slot**.

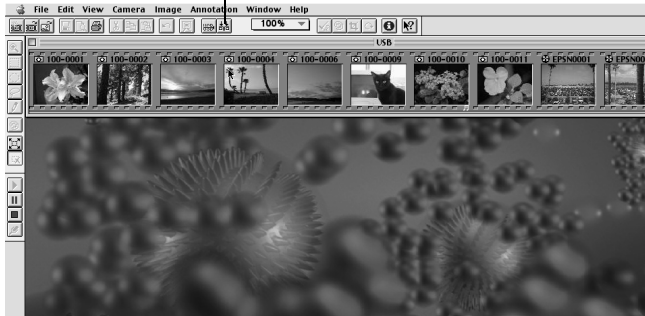
You see a window displaying “filmstrips” of the images on your camera's memory card.

If you see an error message, see page 10-6.


In the top left corner of each image preview, you see an icon that shows the file type. The  icon appears on video clip files (QuickTime Movie format) and the  icon appears on photos (JPEG or Tiff format). If you recorded audio for a photo, the  icon also appears.

- 4 Click the  button to transfer all the images to your hard drive. To transfer a single image, click it to select it, then click the  button.

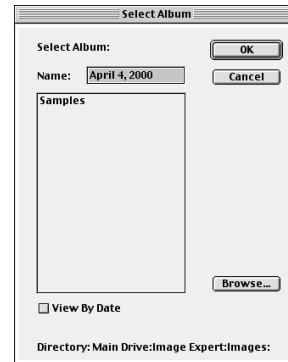
click to start transferring your photos



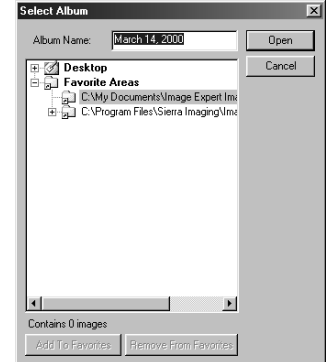
NOTE

- ▶ To select more than one image, hold down the **Ctrl** key in Windows or the **Shift** key on your Macintosh while you click.
- ▶ To deselect an image or images, click another image.
- ▶ You must click the  button to transfer images. When you view images on your computer, they are not yet transferred.

You see a Select Album window like the following:



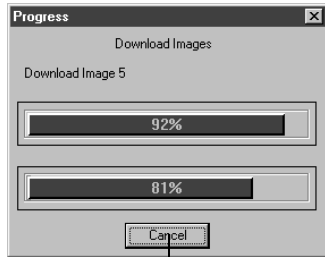
Macintosh



Windows

Image Expert automatically creates an album (folder) for your photos with the current date as its name. You can type your own name for the album if you want, or choose an existing album.

- 5 Click **Open** (Windows) or **OK** (Macintosh) to begin transferring your photos. You see a confirmation message asking if you want to download selected images only.
- 6 Click **Selected** to download the selected images, or **All** to download all images. A window like the following shows you the progress of each download:



click if you want to stop
transferring images

NOTE

Video clips and Tiff files take longer to transfer than JPEG files.

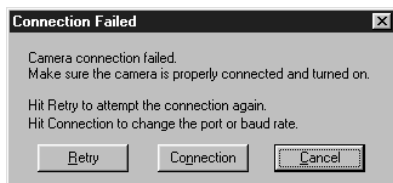
- 7 When you're finished, close the camera filmstrip window.
- 8 You see a confirmation message asking if you want to delete all the photos you transferred from your camera's memory card.
- 9 Click **Yes** to erase the image(s) from the camera's memory card, or **No** to save the images on the memory card. Click **Cancel** if you want to keep the camera filmstrip window open.

From your album, you can double-click a photo or video clip to open it in Image Expert. You can display your images one by one, edit, print, and copy them to disks, or place them in your documents and presentations.

See your electronic *Image Expert User's Guide* for information about working with images and using albums in Image Expert. (To open the guide, see page 9-9.)

What To Do if You See an Error Message

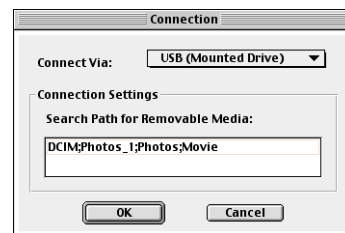
When you try to view images in the camera's memory card, you may see a message like the following:



Follow these steps to get your camera connected correctly:

- 1 Make sure the camera is turned on and has not shut off automatically. If it has, press the **POWER** button to turn the camera back on.
- 2 Check the cable and make sure the connections are secure.
- 3 Make sure your batteries have enough power or your AC adapter is connected.

- 4 Click **Retry**. If you see the **Connection Failed** message again, click **Connection**. You see the following dialog box:



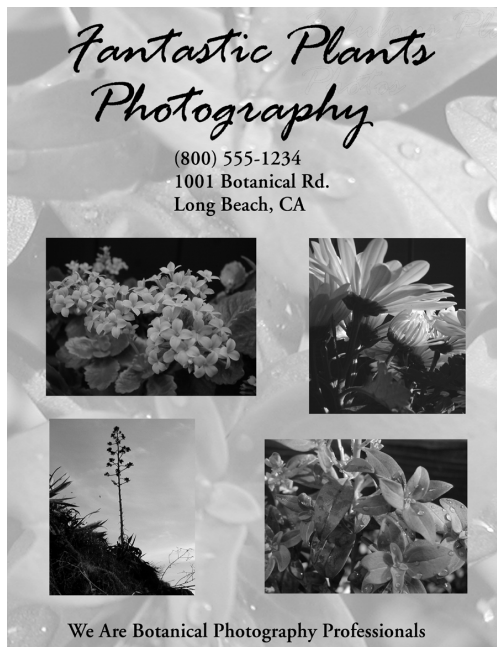
- 5 Select another image source from the **Connect Via** list, if necessary. If you are connecting the camera with USB, select **USB (Mounted Drive)** for the **Connect Via** setting. If you're using a PC Card Adapter with your CompactFlash memory card, select **PC Card**.

NOTE

Don't select Serial/USB; that setting won't work with your camera.

- 6 When you are finished, click **OK**.

11 *Getting Your Photos Into Documents*



Sections in this Chapter:

Importing Images Into Documents	11-2
Getting Images With Copy and Paste	11-3
Using Drag and Drop From an Album (Windows Only).	11-4
Getting Images With the Camio Viewer (Windows)	11-5
Sharing Your Photos on the Internet.	11-8
Additional Tips for Importing.	11-8

PhotoPC 3100Z provides several methods for getting your pictures into presentations, letters, web pages, and other projects. You can drag and drop a picture from an Image Expert album into a document or presentation. You can also import an image into your application, or copy and paste it. With Windows, you can use the Camio Viewer to drag a picture directly from the camera and drop it into your project.

Importing Images Into Documents

Once your pictures are transferred and saved on your hard drive, you can import them into your applications. You may need to convert your images if your application can't import JPEG or Tiff files. Use the Save As feature of Image Expert to convert image files (see your electronic *Image Expert User's Guide* for details).

NOTE

Your picture may display poor image quality on the screen after you import it. However, in most cases it will print correctly.

To import a PhotoPC 3100Z picture into your document:

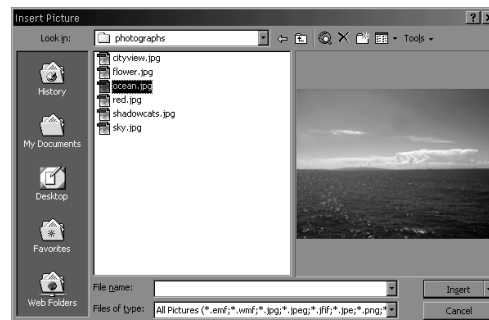
- 1 Start your application.
- 2 Open the document where you want to use the picture.
- 3 Select the point where you want to place your picture.

NOTE

In some applications, you can add a frame around the picture if you want to move it or resize it. In other applications, you create a frame first and then place the picture in it. For instructions, see your application's help system or documentation.

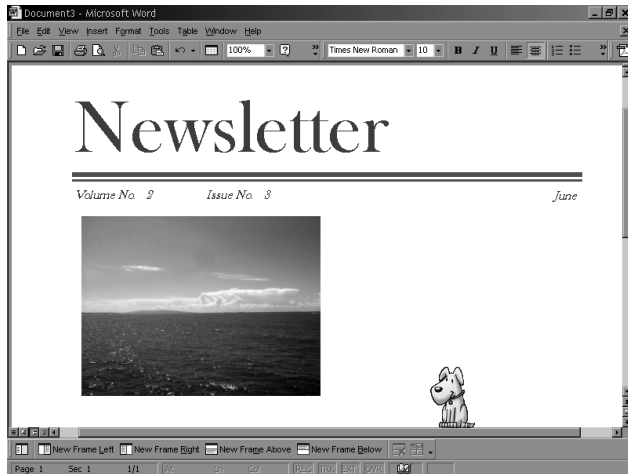
- 4 Select **Picture** from the **Insert** menu. (In some applications you may need to select a different command, such as **Import Picture**, which is usually in the **File** menu.)

An Insert Picture dialog box appears (your dialog box may look different, depending on your application):



- 5 Locate and select the image you want to insert. In some applications you can see a preview of your picture.
- 6 Click OK (or Insert, Import, or whatever command your application uses) to insert your picture.

The picture appears in your document.




Getting Images With Copy and Paste

You can use this method to place a picture in just about any type of document or project. You should already have transferred your picture from the camera to your hard disk.

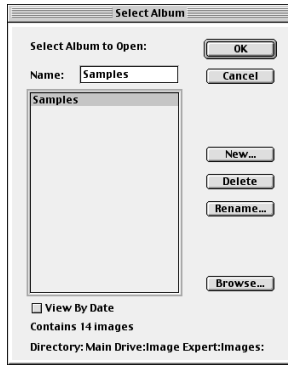
To copy and paste images:

- 1 In Windows, click **Start**, **Programs**, **Image Expert**, **Image Expert - PhotoPC 3100Z**. If you see the Image Expert Quick Tour screen, click **Close**.

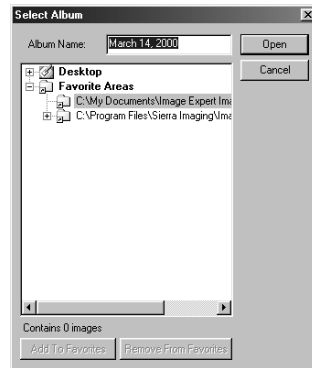
On a Macintosh, open the Image Expert - PhotoPC 3100Z folder and double-click the Image Expert icon.

- 2 Click **View Pictures from an Existing Album**. Or, from the Image Expert screen, click the **Open Album** button  or select **Open Album** from the File menu.

You see a dialog box like this:



Macintosh



Windows

- 3 Locate the album (folder on your drive) you want and double-click it to open it.
- 4 When a filmstrip of images appears in the Image Expert window, click the picture you want to copy.
- 5 Click the **Copy** button or select **Copy** from the Image Expert Edit menu.
- 6 Start your application.

- 7 Open the document where you want to use the picture.
- 8 Choose **Paste** (or **Paste Special**) from your application's Edit menu. A copy of the picture appears in your document.

Using Drag and Drop From an Album (Windows Only)


Once you have transferred your photos, you can easily drag and drop them from Image Expert albums into documents or other projects.

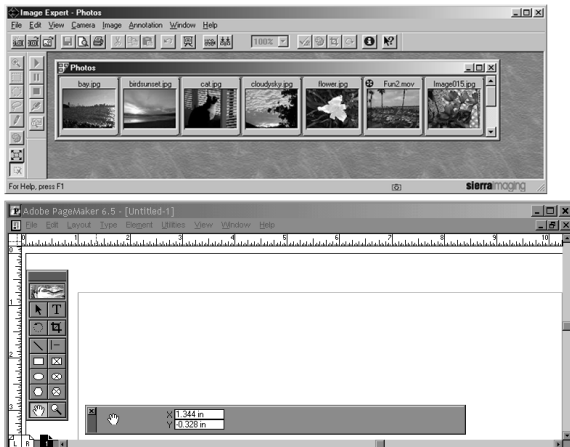
NOTE

Dragging and dropping an image into a document works only with OLE-2.0-compliant applications, such as Microsoft Word,[®] PowerPoint,[®] WordPerfect,[®] or Lotus SmartSuite.[®] Depending on how well your application supports OLE 2.0, your images may not look as good when you drag and drop them as when you import them.

To drag and drop photos:

- 1 Start Image Expert as described on page 11-3.

- 2 Click **View Pictures from an Existing Album**, or click the  **Open Album** button from the Image Expert screen.
- 3 Locate the album you want and double-click it to open it.
- 4 Start your word processor or other application and open the document where you want to use the picture. You should have both the Image Expert album and the document displayed on your screen, as shown:



- 5 Click the image you want.
- 6 While holding down the mouse button, drag the image to the location where you want it in your document.
- 7 Release the mouse button. The picture appears in your document.

If you want to edit or modify the picture, just double-click it in the Image Expert window to bring up the Image Expert menus and toolbar.

Getting Images With the Camio Viewer (Windows)

The Camio Viewer, a component of Image Expert, is a quick and easy way to get pictures from the camera. You can transfer all images to your computer, or just display the pictures in the camera. Then you can drag a picture directly into a presentation or document.

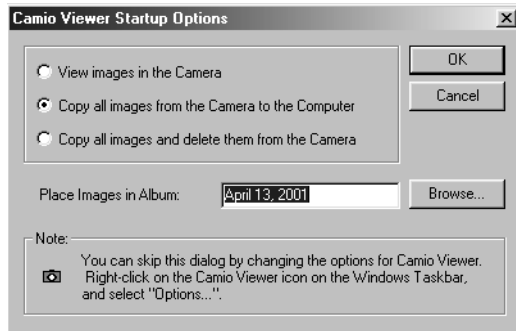
NOTE

Dragging and dropping an image with the Camio Viewer works only with OLE-2.0-compliant applications running in Windows.

First you need to connect the camera to your computer as described on page 9-6.

- 1 Double-click the  camera icon on the right end of your Windows taskbar.

You see the Camio Viewer Startup Options dialog box:



- 2 Choose one of the following options:

- ▶ **View images in the Camera**

Displays a filmstrip of your pictures. You can then select an image to drag and drop into a document or presentation. (The image is embedded in your document, and is not available as a separate file.)

- ▶ **Copy all images from the Camera to the Computer**

Transfers your pictures to an album (folder) on your hard drive. You can then select an image to drag and drop.

- ▶ **Copy all images and delete them from the Camera**

Transfers your pictures to an album (folder) on your hard drive and deletes them from the camera. You can then select an image to drag and drop.

- 3 Continue with the steps in one of the following sections, depending on the option you chose in step 2. (If you see an error message, see page A-7 for possible solutions.)

Dragging and Dropping a Picture Into a Document

If you chose View images in the Camera:

- 1 Click OK. Your pictures appear in a strip of thumbnail images:
- 2 Open the application and document where you want to use the picture.
- 3 Click the picture you want to use. Hold down the mouse button as you drag the picture to your document. When your pointer is over the location where you want the picture to appear, release the mouse button. The picture is downloaded to your document from the camera.



To edit the picture, double-click it in the Camio Viewer filmstrip to bring up the Image Expert menus and toolbar.

For more information about the Camio Viewer, see your electronic *Image Expert User's Guide*.

NOTE

When you drag and drop with the Camio Viewer, your picture is not saved as a separate image file on your hard drive. You have to transfer your image first if you want it to be available as a separate image file.

Transferring Images Before Placing Them

If you chose Copy all images from the Camera to the Computer or Copy all images and delete them from the Camera:

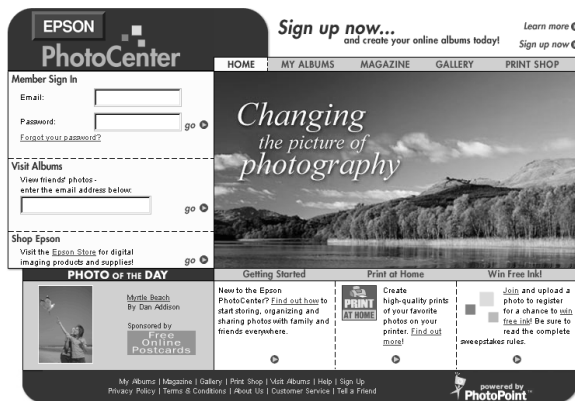
- 1 Click OK to copy your pictures to an album named with the current date. Or, type a new name for the album and click OK. Your pictures are transferred one by one. They appear in a strip of thumbnail images, as shown to the left.
- 2 Follow steps 2 and 3 in the previous section to drag and drop a picture into a document or other project.

Sharing Your Photos on the Internet

You can share your photos with friends and family members on the EPSON PhotoCenter website. You create albums where you can upload and organize your photos. The albums are private; you can decide who is able to access them.

Connect to the Internet, then go to

<http://photo.epson.com>. Click **Sign up now** to set up an account, or click **Learn more** for details.



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Additional Tips for Importing

Here are some additional tips for importing your photos and video clips.

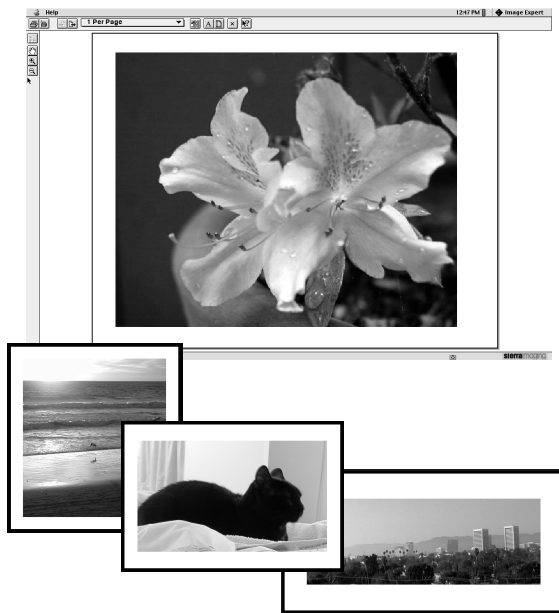
Importing Video Clips

You may not be able to import video clips into some applications. Not all applications recognize the camera's movie file format. If you upgrade your QuickTime Player to QuickTime Pro, you can use that program to save your file in a format that your application recognizes. You can also use QuickTime Pro to edit your video clips. Go to <http://www.apple.com/quicktime/> on the Internet for details.

Importing Photos Into Web Pages

Before you import pictures with your Web design and management application, reduce your images to a smaller size, such as 640 × 480 pixels using Image Expert. Large photos cause pages to load slowly. You might try creating a small, preview image with a link to the full-sized photo. See your Web application's documentation for instructions.

12 *Printing Your Photos*



Sections in this Chapter:

Printing a Single Photo	12-1
Printing Photos from an Album.....	12-3
Printing Size Guidelines	12-4



Image Expert lets you lay out and print a single photo or an entire album. You can print a contact sheet of all the pictures in your camera, or several copies of your photos with different layouts and print settings.

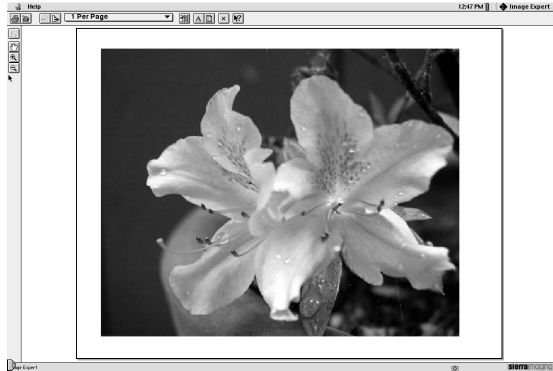
Printing a Single Photo


1 Start Image Expert:

In Windows, click Start, Programs, Image Expert, Image Expert - PhotoPC 3100Z.



On a Macintosh, open the **Image Expert - PhotoPC 3100Z** folder and double-click the **Image Expert** icon.

- 2 Click the  **Open Image** button and select your file. The photo opens.
- 3 Click the  **Print Layout** button. Your photo opens in the **Print Layout** window.



- 4 Click the  **Print Setup** button and click **Properties** (Windows) or **Options** (Macintosh) to open your printer settings (see your printer documentation for instructions).

Make sure you select the paper size that you have loaded in your printer. This affects the appearance of your print layout. When you're done, close the printer settings window and click **OK**.

- 5 Select a print layout from the list. You can print a single large copy of your photo, several small copies, or a combination of different sizes.
- 6 To add text, click the  **Edit Text** button and type in the text you want to include, then click **OK**.
- 7 Click the  **Print** button to print your photo.

TIP

For more printing options, read your electronic Image Expert User's Guide, as described on page 9-9.

Printing Photos from an Album

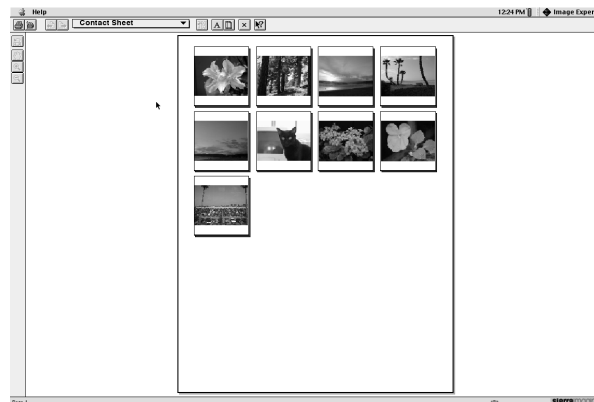
1 Start Image Expert:

In Windows, click **Start, Programs, Image Expert, Image Expert - PhotoPC 3100Z**.

On a Macintosh, open the **Image Expert - PhotoPC 3100Z** folder and double-click the **Image Expert** icon.


2 Click the Open Album button and select your album. The album opens.

3 Click the Print Layout button. Your photos open in the Print Layout window.

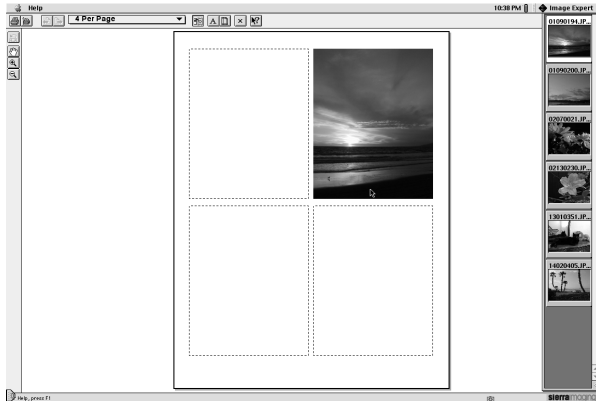


4 Click the Print Setup button and click **Properties** (Windows) or **Options** (Macintosh) to open your printer settings (see your printer documentation).



Make sure you select the paper size that you have loaded in your printer. This affects the appearance of your print layout. When you're done, close the printer settings window and click **OK**.

- 5 Select a print layout from the list. You can print a single large photo on each page, several small photos per page, or a combination of different sizes.
- 6 If you want to print only some of the photos in an album, click the  Pick Images button.

The album appears on the side of the screen.



Drag photos from the album to the layout outlines on the page.

- 7 To add text, click the  Edit Text button and type in the text you want to include, then click OK.
- 8 Click the  Print button to print your photos.

Printing Size Guidelines

Here are image size guidelines to follow for the best print quality when printing photos:

- ▶ Print images captured at 640×480 pixels as small prints (4×6 inches, or smaller).
- ▶ Print images captured at 2048×1536 pixels as larger prints (up to 8×10 inches).
- ▶ Print images captured at 2544×1904 pixels as the largest prints (up to 11×17 inches).
- ▶ Larger images still look good when printed at smaller sizes.

13

Stitching Panoramas

Sections in this Chapter:

Importing and Aligning Pictures in Windows	13-1
Importing and Aligning Pictures On a Macintosh.	13-3
Stitching a Big Plane Panorama	13-3
Stitching a Cylinder Panorama	13-5
Viewing and Printing Panoramas	13-6

You can take the pictures you've captured with your camera's panorama mode and create flawless panoramic views that you can share and print.

NOTE

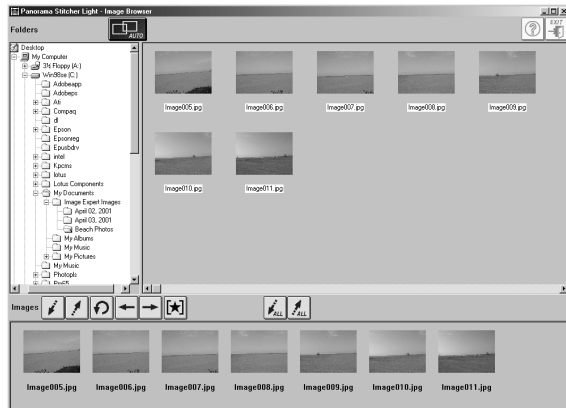
Panorama Stitcher requires Mac OS 8.6, or later on Macintosh systems. See page 4-6 for details on capturing panoramic pictures with your camera.





You can stitch cylindrical panoramas for when you've taken photos of 360° views or panned images. You can save the cylindrical panoramas as 3D virtual reality scenes that you view with the QuickTime VR Player. Or, you can stitch big plane panoramas when you want a single, long panorama that extends from a central, base image. You can print big plane panoramas on panoramic paper.

Importing and Aligning Pictures in Windows


- 1 Click Start, point to Programs, EPSON Camera, Panorama Stitcher Light EP, and click Panorama Stitcher Light EP.
- 2 Click the folder or drive containing your stored images on the left side of the screen.


Thumbnails of your photos appear to the right.



- 3 Click the images you want to stitch, then click the  down arrow to add them. To select multiple images, hold down the Ctrl or Shift key. To remove an image, click the  up arrow.
- 4 Use the   buttons to move photos to the left or right. (Images should be lined up in the correct order for the software to stitch them properly.) If your panorama is two rows high, keep the images in the order in which they are saved.

- 5 Use the  Rotate All button to rotate images.

- 6 If you are creating a big plane panorama, select a base image and click the  Set Base Image button.

- 7 Click the  Automatic Alignment button, then click OK. Panorama Stitches aligns the images in the automatic alignment window.

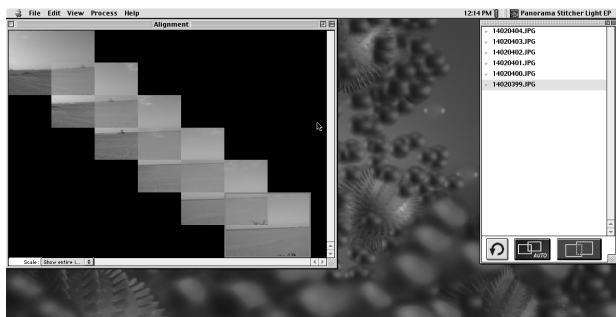



- 8 Click and drag images to adjust the alignment, if necessary.

Now you are ready to create your panorama: to stitch a big plane panorama, see page 13-3. To stitch a cylinder panorama, go to page 13-5.

Importing and Aligning Pictures On a Macintosh

- 1 Open the Panorama Stitcher folder and double-click Panorama Stitcher Light EP.
- 2 You see the Alignment window (shown below). Select **Add Image** from the File menu.
- 3 Click the folder containing your stored files and select the files you want to stitch. To select multiple images, hold down the **Shift** key.
- 4 Click **Open**. Your pictures appear in the Alignment window.



- 5 To remove an image, click it (a red frame appears around the image), and then select **Clear** from the Edit menu.
- 6 Align your images manually by clicking and dragging them, or click the  Auto Align button.
- 7 If you are creating a big plane panorama, click a base image to select it and choose **Set Base** from the View menu.

Now you are ready to create your panorama: to stitch a big plane panorama, see the section below. To stitch a cylinder panorama, go to page 13-5.

Stitching a Big Plane Panorama

To stitch a long, straight image that you can print on panoramic paper:

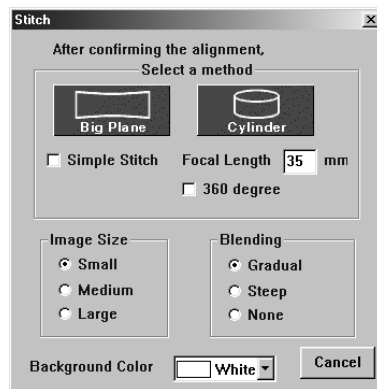
- 1 Click the  Stitch button.

- 2 You see the Stitch window.

For a simple stitch (image blending), click the **Simple Stitch** checkbox.

Otherwise, the software will match and adjust features to morph them into a single image.

- 3 Choose Image Size, Blending, Focal Length, and Background Color settings for your stitch. If you plan to print your image, choose **Large** as your Image Size.
- 4 Click the **Big Plane** button to stitch your image.




- 5 Your stitched image appears:




Macintosh



Windows

Drag the marquee to select the area you want to include in your panorama and click the  Trimming button.

- 6 In Windows, click the  Save button to save your image. On a Macintosh, select **Save** from the File menu and save your panorama.

Stitching a Cylinder Panorama

To stitch a cylindrical, 3D virtual reality scene that you can view in the QuickTime VR Player:

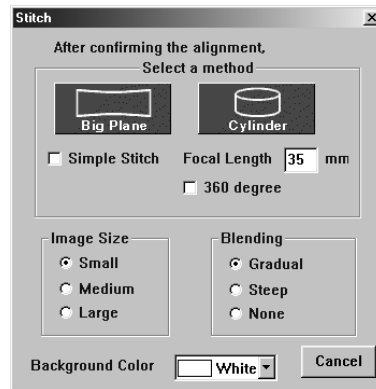
- 1 Click the  Stitch button.

- 2 You see the Stitch window.

For a simple stitch (image blending), click the **Simple Stitch** checkbox.

Otherwise, the software will match and adjust features to morph them into a single image.

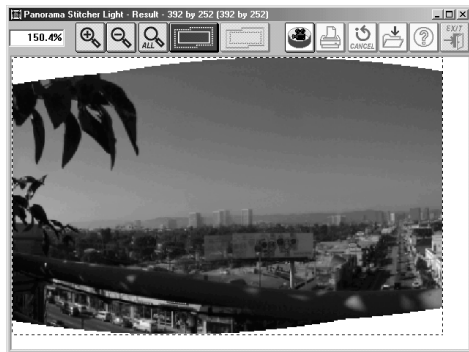
- 3 Choose Image Size, Blending, Focal Length, and Background Color settings for your stitch.
- 4 Click the **360 degree** box if you want to create a 360° VR panorama.
- 5 Click the **Cylinder** button to stitch your image.




Your stitched image appears.




Macintosh



Windows

- 6 In Windows, click the  VR Viewer button to see a preview of your VR panorama.

On a Macintosh, you must save your VR panorama and then you can view it in QuickTime.

- 7 In Windows, click the  Save button. On a Macintosh, select **Save** from the File menu.
- 8 Select **QuickTimeVR Files** as the file type and save your image.

Viewing and Printing Panoramas

You can view your 360° VR panorama movies in the QuickTime VR Player. Find the VR movie (.mov) file that you saved on your computer and double-click it to open the file in QuickTime. To navigate the file, click and drag the mouse in the direction you want to move. See the On-line QuickTime Player Help for more information.

You can print on special panoramic photo paper or roll paper if your printer supports panoramic or roll paper printing. Visit the EPSON Store on the Internet at www.epsonstore.com for available EPSON printers that support panoramic and roll paper printing.

14

Presenting Your Photos

Sections in this Chapter:

Uploading Images to the Camera.	14-1
Converting Presentations.	14-7
Connecting the Camera to a Video Device	14-10

You can connect your camera to a multimedia projector or television and present not just photos and sounds, but also text, graphics, and video clips that you've captured with your camera.

The EPSON File Converter lets you convert still images, screens, and sounds from your computer so you can upload them to your camera's memory card. Then you can play your files without a laptop computer.

Uploading Images to the Camera

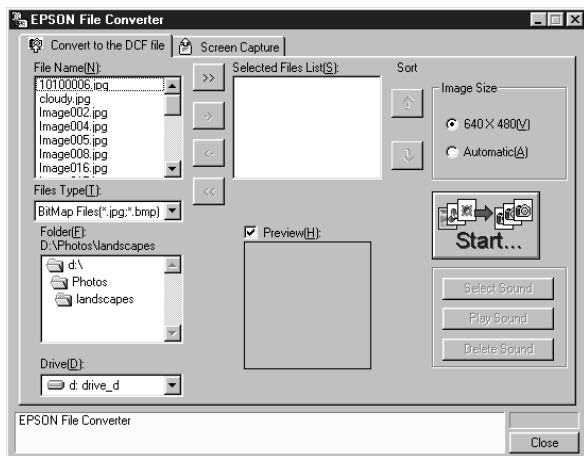
The EPSON File Converter software allows you to convert any image or presentation slide on your computer to the EPSON Photo file format so you can upload it to your CompactFlash memory card. You can leave images in their actual sizes or convert them to 640×480 pixels. You then upload the converted images by copying them directly to your camera's memory card.

NOTE

Images that have been cropped display white strips in the cropped areas.

Converting Files in Windows

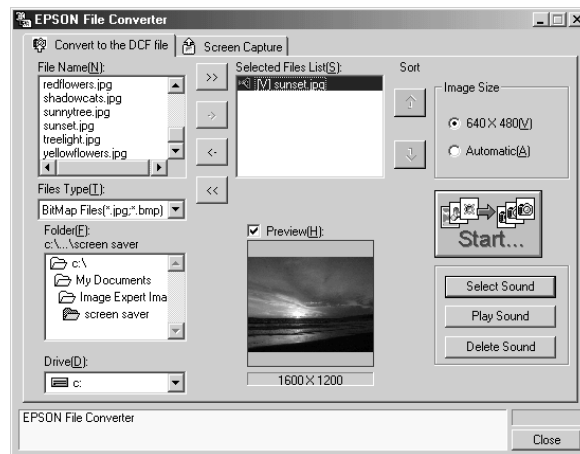
- 1 Click Start, point to Programs, EPSON Camera, EPSON File Converter, then click EPSON File Converter. You see a screen like the following.



- 2 Use the Drive and Folder lists to locate the folder containing the images you want to upload. Double-click the folder to select it. The images in the folder are listed in the File Name box.

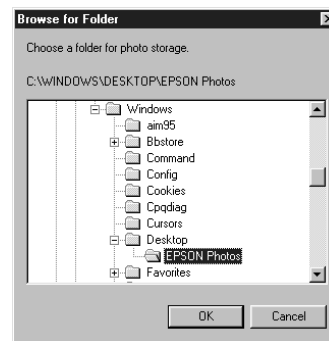
- 3 Select the format of the images you want to upload from the Files Type list.
- 4 Select the images you want to upload in the File Name list. Then click the -> button. If you want to upload all the images in the list at once, click the >> button.

As you select files, they appear in the **Selected Files List** in the order they will be uploaded. This determines the sequence in which you can display the images.



- ▶ To rearrange the uploading (and display) order, select the image you want to reorder, then click the ↑ or ↓ Sort arrow.
 - ▶ If you want to change your selection, click the <- button to remove selected files or click the << button to remove all the files from the **Selected Files List**.
 - ▶ If you want to preview a selected image and confirm its size, click the **Preview** checkbox.
- 5 For each file in the **Selected File List**, select **640 × 480** or **Automatic** from the **Image Size** box. When you select **Automatic**, the File Converter resizes your files to a size the camera can read, keeping them as close to the original size as possible.
- 6 If you want to upload an audio recording with a file, highlight the file name in the **Selected Files List** and click the **Select Sound** button.
- 7 From the **Open** dialog box, select your sound file and click **Open**. If you want, click the **Play Sound** button to play the sound or the **Delete Sound** button to remove it.

- 8 Click the **Start** button. You see a window like the following:



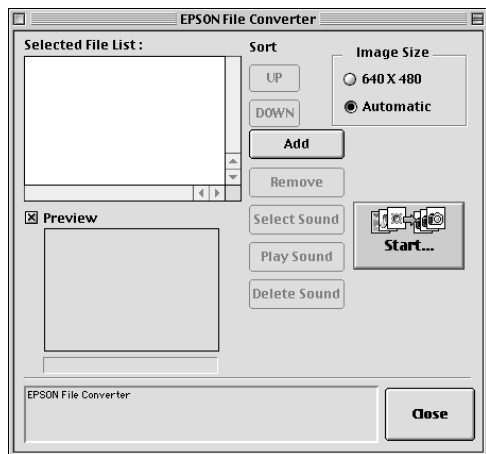
- 9 Select a folder where you want to save your converted files, then click **OK**.

Your files are converted and saved in the selected folder.

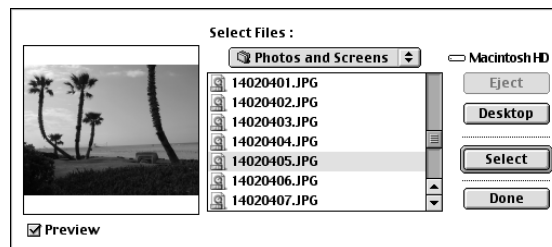
To upload the converted files to your camera, see “Uploading Converted Files” on page 14-6.

Converting Files on a Macintosh

- 1 Open the EPSON File Converter folder and double-click the EPSON File Converter icon. The EPSON File Converter dialog box opens:



- 2 Click Add. The Select Files dialog box appears.

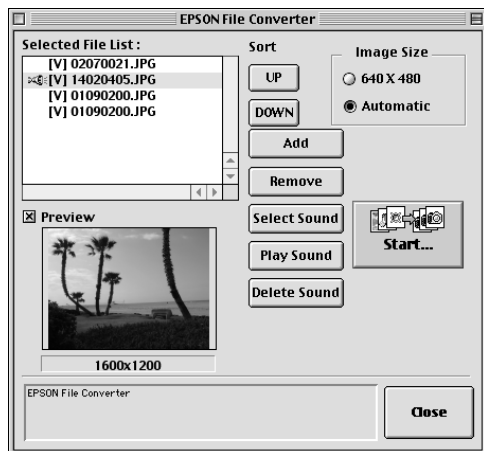


- 3 Double-click the folder containing the images you want to upload, then select each file you want to upload and click Select.

If you want to preview a selected image, click the **Preview** checkbox. It takes a few seconds longer to select images with previews displayed.

- 4 When you finish selecting image files, click **Done** to close the Select Files dialog box.

The selected images appear in the **Selected File List** in the order they will be uploaded. This determines the sequence in which you can display the images.



- ▶ To rearrange the uploading order, select the image you want to reorder, then click **Up** or **Down**.
 - ▶ To remove files from this list, select the file(s) and click **Remove**.
- 5** For each file in the **Selected File List**, select **640× 480** or **Automatic** from the **Image Size** box.

- 6** To upload an audio recording with a file, highlight the image file name in the **Selected Files List** and click **Select Sound**. Find the folder where your sound file is located and select the sound you want to associate with your file. Then click **Open**.

- 7** If you want, click **Play Sound** to play the sound or click **Delete Sound** to remove it.

- 8** Click the **Start** button. Select the folder where you want to save your converted files and then click **Open**.




- 9** Click the **Select** button to start uploading files to your selected folder. A window opens to show you the progress of the file conversion.

To upload the converted files to your camera, see the next section, “Uploading Converted Files.”

Uploading Converted Files

After you have converted your files as described in the previous sections, you can upload them to your camera.

- 1 If you are connecting via USB, make sure the camera is turned on and connected to your computer, and the camera dial is turned to .
- 2 In Windows, double-click **My Computer**. You see a drive icon for your camera or card. Double-click the drive icon.

On a Macintosh, you see the **EPSON_DSC** drive icon on your desktop. Double-click the drive icon.
- 3 You see two or more folders. Double-click the **DCIM** folder, then double-click the **100Epson** folder.
- 4 Open the folder on your computer where your converted files are stored and drag them to the **100Epson** folder. (To select multiple files, hold down the **Shift** key or the **Ctrl** key.)

CAUTION

If you delete any files in the 100Epson folder, they are deleted from the camera's memory card.

- 5 In Windows, turn off the camera and disconnect it from your computer or remove the card.

On a Macintosh, drag the icon for the camera or card to the Trash. Turn off your camera and disconnect it or remove the card.

NOTE

If your camera's CompactFlash memory card can't hold all the images you'd like to upload, you can purchase a higher density card. See Appendix B for details.

Converting Presentations

You may want to upload a presentation or document to your camera that you can't save as a standard image file. To do this, you can make a "screen capture" of your computer desktop while the document or presentation is open. Then you can convert the captures into a series of image files that you can upload to your camera's memory card.

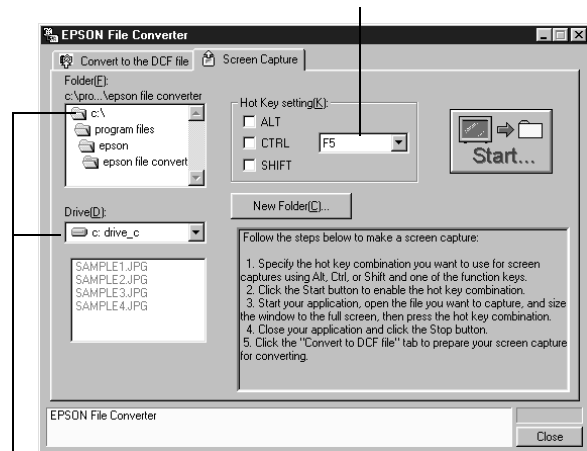
Windows users can make screen captures from within the EPSON File Converter utility; Macintosh users need to use the standard Macintosh screen capture function.

Capturing Windows Screens

- 1 Click **Start**, point to **Programs**, **EPSON Camera**, **EPSON File Converter**, then click **EPSON File Converter**. You see the EPSON File Converter window.

- 2 Click the **Screen Capture** tab. The Screen Capture dialog box appears:

choose the key combination to use for capturing screens



set the drive and folder for saving screen captures

- 3 Use the **Drive** and **Folder** lists to select the folder where you want to save the screen captures. To create a new folder for them, click the **New Folder** button.

- 4 Specify the key combination you want to use to take your screen captures in the **Hot Key** setting box. Click the **ALT**, **CTRL**, or **SHIFT** checkbox, then select a function key from the list. The default hot key is **F5**.

- 5 Click **Start** to activate the key combination. The key combination remains active only for the current session.

When the key combination is activated, the **Start** button changes to a **Stop** button.

To deactivate the hot key combination, press the **Stop** button.

- 6 Start your application and open the file to the page or image you want to capture.

NOTE

- *The entire screen is captured, not just the active window. Make sure you maximize your presentation before you capture it. If you set your application to "slide show" mode (or the equivalent) you can capture just the image you want, without menus and other screen elements. See your application's documentation for instructions.*
 - *Presentations using large font sizes (at least 18 points) work best.*
-

- 7 Press the hot key combination you selected. Your screen capture is assigned a file name and saved to the folder that you specified.

You can take as many screen captures as you'd like; simply open each file you want to capture and press your hot key combination again.

- 8 When you're finished, close your application and click the **Stop** button on the Screen Capture dialog box. The key combination you selected is erased.

To convert your screen captures for uploading, follow the instructions on page 14-2. Then follow the instructions on page 14-6 to upload the screens to the camera.

Capturing Macintosh Screens

EPSON File Converter for the Macintosh does not have a screen capture feature. However, you can make screen captures using your Macintosh system software, then use EPSON File Converter to convert the screen captures for uploading to your camera.

The procedure may differ slightly, depending on your Macintosh. See your computer's manual or Mac Help for more information.

To capture screens:

- 1 Start your application and open the file to the page or image you want to capture.

NOTE

- ▶ *Make sure you maximize your presentation before you capture it. If you set your application to "slide show" mode (or the equivalent) you can capture just the image you want, without menus and other screen elements. See your application's documentation for instructions.*
 - ▶ *Presentations using large font sizes (at least 18 points) work best.*
-

- 2 To capture the entire desktop, press the **⌘**, **Shift**, and **3** keys on your computer keyboard at the same time. Your Macintosh names and saves the screen capture on your hard drive (not in a folder).
- 3 To capture just the active window, turn on **Caps Lock**, press the **⌘**, **Shift**, and **4** keys at the same time, then click the window you want to capture.

You can make as many screen captures as you'd like; simply repeat these steps.

To convert your screen captures for uploading, follow the instructions on page 14-4. Then follow the instructions on page 14-6 to upload the screens to the camera.

Connecting the Camera to a Video Device

You can display your photos, video clips, uploaded images, and sounds on a multimedia projector, television, VCR, or other video output device.

NOTE

The optional AC adapter is highly recommended while the camera is connected to a video device. See page B-2 for instructions and ordering information.

You need the video cable that came with your PhotoPC 3100Z to connect to your video device.

Setting the Broadcast Signal System

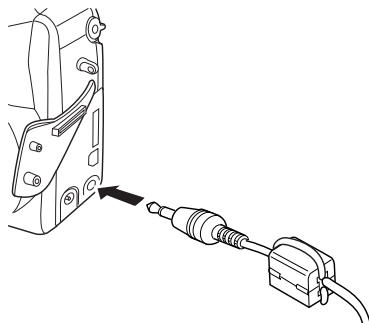
If you will use your camera with a television, make sure the camera has the correct broadcast signal setting.

- 1 Turn the camera dial to **SETUP** to display the **SETUP** menu.
- 2 Press the button under the **4:3** icon to go to the Language/Signal setup menu.
- 3 If necessary, press the button next to **TV** to change the setting to **NTSC** (the U.S. broadcasting standard).
- 4 Press the button under **BACK** to save the setting and return to the **SETUP** menu.

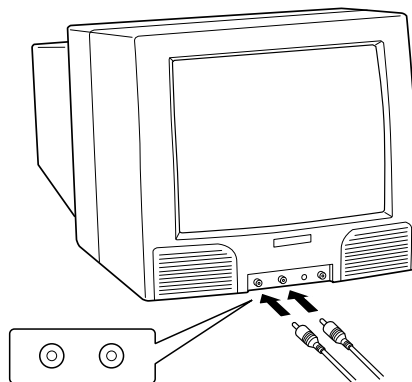



Connecting the Camera

- 1 Make sure your camera and TV, VCR, or video projector, or other video device is turned off.
- 2 Open the camera's connector cover and connect the black end of the video cable to the AV Out port, as shown below:



- 3 Connect the yellow end of the video cable to the VIDEO IN port and the white end of the cable to the AUDIO IN port on the TV, VCR, projector, or other device.



- 4 Turn on the video device and switch to video mode.
- 5 Turn the camera dial to .

The last image that you uploaded to the camera is projected. If you are using the optional AC adapter, you can also see the image on the camera's LCD screen.

You can use the camera's slide show feature to play your images and sounds automatically (see page 6-11), or play them one at a time using the camera's navigation buttons. You can use all of the camera's other playback features to show your presentation (see Chapter 6 for details).

- 6** When you're done playing back pictures, turn off your camera and turn off your video device.
- 7** Disconnect the cables.

TIP

You can videotape your pictures, sounds, and videos to share them without using a computer. After you connect the camera to a VCR, press the Record button on the VCR to play back a video clip (see page 6-8) or use the camera's slide show feature (see page 6-11).

Troubleshooting and Reference

This section includes troubleshooting and maintenance instructions for your EPSON PhotoPC 3100Z, optional accessories available for the camera, specifications, and warranty information. This section includes the following appendices:

- A Maintenance and Troubleshooting
- B Optional Accessories
- C Specifications
- D Notices



There is an Index following this section of the book.



Maintenance and Troubleshooting

Sections in this Appendix:

Caring for the Camera	A-1
Solving Camera Problems	A-3
Solving Connection and Software Problems	A-7
Solving Picture Problems	A-11
Where To Get Help	A-15

Caring for the Camera

Your PhotoPC 3100Z requires only basic care. Before you perform any maintenance procedures, be sure to read the safety instructions in Appendix D. Then follow the guidelines in the sections below.

Handling the Camera

- ▶ To avoid damaging the optics of the camera, do not expose the lens to direct sunlight for extended periods of time.

NOTE

To further protect the lens from bright sunlight, you can attach an optional UV filter with your camera's lens adapter. See Appendix B for instructions.

- ▶ Make sure you replace the lens cap on the camera when you are not using it. Remove the lens cap before turning on the camera.
- ▶ Attach the neck strap (see Chapter 1) and use that to carry the camera. Keep the camera in the included case, or in a camera bag to protect it.

- ▶ Avoid sudden temperature changes, which can cause moisture to form on the camera and options. Keep the camera and options in a case or bag if you need to move them from a cold environment to a warm one. Allow time for the camera and options to adjust to temperature changes before using them.

Cleaning the Camera

- ▶ Use a clean, dry cloth to wipe the camera free of dust.
- ▶ Don't use harsh or abrasive cleaners. Don't use liquid or aerosol cleaners.
- ▶ To clean the lens, first blow off any loose dust or dirt. Then breathe on the lens and wipe off all moisture with a soft, lint-free cloth or lens cleaning tissue. To avoid scratching the lens, don't press too hard.
- ▶ If necessary, clean the battery contacts with a dry cloth.
- ▶ If the LCD screen gets fingerprints or smudges on it, use a soft, damp cloth to lightly wipe the screen.

Storing the Camera

- ▶ When you're not using the camera, make sure the camera is turned off and the lens is retracted. Attach the lens cap to protect the lens.
- ▶ When the camera is not used for long periods of time, remove the batteries and store them at a low temperature in a dry location. This prevents damage to the camera from battery leaks or corrosion.






Do not store the camera in the following locations:

- ▶ Where it will be exposed to direct sunlight, for example, on a car dashboard
- ▶ Near sources of bright light or high humidity
- ▶ Near heat sources or in a closed car or trunk
- ▶ In areas of excessive dirt or dust
- ▶ Where it will be exposed to strong vibrations or magnetic fields

Solving Camera Problems

Before you call for help, check this list of problems and possible solutions:


The camera has no power.

- ▶ The camera may have shut off automatically. If your camera dial is set to , , or , press the shutter button to turn the power back on. If your camera dial is set to , , or **SETUP**, press any button on the back of the camera to turn the power on. (You can also press the **POWER** button to turn the camera off and then press it again to turn the camera back on.)
- ▶ Check the batteries and make sure they're installed correctly. If you are using optional rechargeable batteries, they need to be charged before you can use them. Recharge or replace the batteries.
- ▶ If you are using the optional AC adapter, make sure it's plugged into a working outlet.

You can't take a picture with the camera.

- ▶ Make sure you've installed the CompactFlash memory card in your camera. If it's already installed, you may need to format it (see Chapter 1). Check to see if a message is displayed on the camera's LCD screen.
- ▶ The CompactFlash memory card may be full; check the picture counter on the display panel. Try setting the camera to a lower image quality setting; there may be enough space to take lower resolution images (see Chapter 2). Erase pictures or video clips (see Chapter 6), or transfer the pictures or video clips to your computer and then erase them (see Chapter 10). Or replace your memory card with a new one (see Chapter 1).
- ▶ The batteries may be low. If you see the low battery icon, replace the batteries (see Chapter 1). If you are using optional rechargeable batteries, recharge them, or use the optional AC adapter (see Appendix B).
- ▶ The camera may be connected to your computer. When it's connected, you can't use any of the controls on the camera itself.



You can't see clearly through the viewfinder.

Adjust the view with the diopter dial. Set the diopter with the camera dial turned to  for the most accurate adjustment.

The camera takes too long to take a picture.






- ▶ You may be pressing the shutter all the way down at once. This forces the camera to focus, make exposure adjustments, and capture the image all at once. Press the shutter button halfway down to focus, then the rest of the way to capture the image (see Chapter 2).
- ▶ If you want to quickly take up to 47 pictures in succession, use the continuous shooting mode. See page 3-3 for details.
- ▶ If you are taking a picture in Uncompressed Tiff mode, the camera takes longer to process the image. Tiff images create large files (9.1MB) and take approximately 22 seconds to process. To capture large, high quality images that you can print, try setting the camera to HyPict JPEG mode instead of Tiff mode; see page 2-8.


The flash doesn't work.

- ▶ Make sure the flash is not set to the  flash off setting.
- ▶ Check the batteries and make sure they're installed correctly. Replace the batteries if necessary.
- ▶ If you are using one of the automatic flash modes (automatic, red-eye reduction, or slow synchronized), the flash only fires when there is insufficient light. If you want to force the flash to fire, set it to  forced mode. (See Chapter 2.)
- ▶ You can't use the flash in continuous shooting mode or video clip capture mode.
- ▶ Check to make sure your camera's flash setting is not set to use an optional external flash if you're trying to use the camera's flash. If you're using an optional external flash, make sure to use the **Ext Flash** setting in the Shot SETUP menu (see Appendix B).

- ▶ If your external flash isn't working, make sure your user mode is set to **Manual** (see Chapter 1) and you have the correct setting in the Shot SETUP menu. Also, make sure the flash is placed on the camera correctly. (See Appendix B.) Your external flash may also need batteries. Check the documentation that came with your external flash for more information.

Nothing appears on the LCD screen (or the status display panel).

- ▶ Check your batteries and make sure they're installed correctly. Replace the batteries if necessary.
- ▶ Make sure you've installed and formatted the CompactFlash memory card.
- ▶ The camera may have shut off automatically. If your camera dial is set to , , or , press the shutter button to turn the power back on. If your camera dial is set to , , or **SETUP**, press any button on the back of the camera to turn the power on. (You can also press the **POWER** button to turn the camera off and then press it again to turn the camera back on.)

- ▶ Make sure the camera is not in  viewfinder mode (if you want to use the LCD screen).
- ▶ The LCD screen turns off automatically when the camera is connected to (and communicating with) a computer or video device.

The lens is still out even though the camera is turned off.

- ▶ The camera may have shut off automatically. To retract the lens, press the **POWER** button to turn the camera back on, then press it again to turn the camera off.
- ▶ The batteries may be low. Connect the camera to the optional AC adapter, or replace or recharge the batteries. Then turn the camera on and back off to retract the lens.

The image on the screen is too dark.

Adjust the brightness of the screen using the Camera SETUP menu. See page 7-5 for instructions.


The menus disappear from the LCD screen.

The menus disappear when you press the **MENU** button. Press the **MENU** button again to make them reappear.

You can't take certain types of pictures or make all the settings you want.

- ▶ Some of the camera's settings and features can't be used at the same time. For example, you can't use continuous shooting mode and set the image quality to ★★ (HyPict or Tiff) at the same time.
- ▶ To adjust certain settings like white balance, exposure, and sensitivity settings, you need to set your user mode to Program or Manual. See page 1-8 for details.
- ▶ Uncompressed Tiff mode images are 9.1MB. You can take only one picture in this mode with your included memory card. For high quality images that take up less memory, try using HyPict JPEG mode. See Chapter 2 for details.
- ▶ To use an optional external flash, you need to set your user mode to Manual. See page 1-10 for details on changing your user mode and Appendix B to use an external flash.


The "pictures remaining" number on the display panel doesn't decrease after you take a picture.

Your camera is operating correctly. The total number of pictures you can store depends on your pictures' content. The number doesn't always change, especially when you're using standard image quality. (To confirm that the camera took the picture, you can turn the camera dial to  to display the last picture that was taken.)

The camera's date and time settings need to be reset often.

When your camera is without working batteries or a connection to an optional AC adapter for an extended period of time, it loses the time, date, and other settings (and returns to the default settings). To make sure you don't lose your settings, connect the camera to an optional AC adapter or purchase a set of batteries to use in the camera when the others stop working.

The camera's LCD screen is displaying the wrong language.

You can change the language back in the Language/Signal setup menu. Turn your camera dial to **SETUP** and press the button under the  icon. (See page 7-4 for complete instructions on changing the language setting.)


When you are in video clip capture mode, the time shown is less than 35 seconds.

- ▶ The camera's CompactFlash card does not have enough remaining memory to capture a complete video clip. You can still capture a video clip for the amount of time shown. If you need to capture a video clip for the full 35 seconds, erase some existing pictures or video clips (see Chapter 6), or transfer the pictures or video clips to your computer and then erase them (see Chapter 10). Or replace your memory card with a new one (see Chapter 1).
- ▶ If you have sound turned on, you can capture a video clip that is 25 seconds. Turn sound recording off to capture a 35-second video clip.

Solving Connection and Software Problems

If you are having trouble connecting your camera to a computer or video device, or installing or using the software, check the suggestions below:

Nothing appears on the television or the sounds don't play when you connect your camera to it.

- ▶ Make sure the video and audio cables are connected correctly, as described on page 14-10, and the camera and TV are turned on.
- ▶ Make sure your camera dial is set to .
- ▶ If your TV has both Video and S-Video modes, make sure it is set to Video mode. See the manual for your television if you need help.
- ▶ Check your batteries and make sure they're installed correctly. Replace the batteries if necessary, or connect the AC adapter.

- ▶ Make sure your camera is set to the correct broadcast signal system (see page 14-10). Also see your television's manual for possible solutions.
- ▶ Check your playback settings to make sure the sound setting is turned on (see Chapter 6).

You get an error message when you try to transfer your pictures to the computer.

- ▶ Make sure the cable is connected correctly as described in Chapter 9.
- ▶ Make sure your camera is turned on and the batteries have enough power, or connect the AC adapter.
- ▶ If your camera is connected to a USB hub, try connecting the camera directly to your computer.

You get a “The Camera Is Not Responding” or similar error message when you’re using your PhotoPC 3100Z software with the camera connected to your computer.

- ▶ Make sure the cable is connected correctly as described in Chapter 9.

- ▶ Make sure your camera is not turned off and the batteries have power, or connect the AC adapter.
- ▶ If your camera is connected to a USB hub, try connecting the camera directly to your computer.
- ▶ From the error screen, click **Connection** and make sure the connection is set to **USB (Mounted Drive)**. (See page 10-6 for instructions.)

You are unable to drag and drop photos into a document.

- ▶ If your computer has less than 32MB RAM, you may not be able to use drag and drop. Make sure you don't run too many applications at the same time. You may need to add memory to your computer or use another method of getting photos into your documents.
- ▶ Your application may not support this method of adding pictures.

You are unable to copy and paste or import your photo into a document on your Macintosh.

- ▶ Try increasing your virtual memory using the Memory Control Panel. Also increase the memory allocation for your word processor or other application. (Select the application and choose **Get Info** from the File menu.)
- ▶ Try turning off any unnecessary extensions. See your Macintosh documentation for more information.

The pictures transfer to your computer too slowly.

- ▶ If you're transferring Tiff files or video clips, you can expect the transfer to take much longer than it does for JPEG files, due to large file sizes.
- ▶ If your computer has less than 32MB RAM, the transfer speed may be slow. Try using virtual memory. See your computer documentation or help for more information.

You can't find your video clips (or photos).

Your camera stores photos and video clips in different folders on the camera's memory card. The photos and associated sound files are stored in the **DCIM\100Epson** folder. The movies are stored in the **Movie** folder.

You are unable to format or use a CompactFlash memory card with your camera.

- ▶ Make sure you're using an ATA-compatible CompactFlash memory card (Type I). Other cards may not work with PhotoPC 3100Z. If you need help with a card, call the appropriate manufacturer's number. Some are listed below:
 - ▶ Lexar Media, (800) 789-9418
 - ▶ SanDisk, (408) 542-0595
 - ▶ Delkin Devices, (858) 586-0123
- ▶ Make sure you've installed the card correctly. The card's label should be facing the front of the camera, and the arrow(s) on the label should point in.

Your notebook computer's PC card (PCMCIA) drive can't access a CompactFlash memory card with a PC card adapter.

If you're using an IBM® ThinkPad®, you may need an updated driver for your PC card (PCMCIA) slot. Contact IBM technical support.

When you upload pictures to a memory card in your computer, your system appears to hang.

Check the status bar at the bottom of your screen. If it shows that the transfer is complete, your system is operating correctly. You may have to click your mouse to change the hourglass icon to a normal pointer.

When you copy image files from your computer to a CompactFlash memory card in your PC card (PCMCIA) drive, the camera can't access the images.

You have to use the EPSON File Converter to convert your images before you upload them. See Chapter 14 for details.

You can't install software in Windows 2000.

If you see an error message or the software doesn't install correctly, you may not have software installation privileges. Contact your System Administrator.

You can't play video clips on your computer.

Make sure you have QuickTime installed on your computer. See Chapter 9.

You can't insert video clips into your application.

Some applications may not recognize the camera's movie file format. If you upgrade your QuickTime Player to QuickTime Pro, you can use that program to save your file in a format that your application recognizes. Go to <http://www.apple.com/quicktime/> on the Internet for details.

Solving Picture Problems

If you're not satisfied with some of the pictures you get from the PhotoPC 3100Z, you may need to adjust the camera settings. Read the suggestions below.

Your pictures display poor image quality on the screen or when you print them out.

- ▶ PhotoPC 3100Z captures images in 24-bit color (16.7 million colors). Your pictures will not display maximum image quality if your monitor or computer's video controller doesn't support this color depth. You may need to upgrade your system to achieve the best possible image quality.
- ▶ If your pictures look better on the screen than when you print them out, you may need to upgrade your printer. An EPSON Stylus® ink jet printer, for example, provides excellent image quality. Also see your printer manual to change your print settings, if necessary.

- ▶ If you used drag and drop to insert your pictures, they may appear grainy. Try importing them into your documents instead.

When you preview images on your computer, they look distorted.


- ▶ If you are using an STB® Velocity 128 video card and have a screen resolution of 800 × 600 or 640 × 480, you may notice this phenomenon. Slowing down the acceleration on your video card may solve this problem: Click **Start**, point to **Settings**, click **Control Panel**, then double-click **System**. On the Performance tab, click the **Graphics** button. Select a slower acceleration and click **OK**. See your Windows documentation or help system for more information.

The colors in your picture don't look right.


- ▶ When you take pictures under certain artificial lighting conditions, the colors may be slightly distorted. You can adjust your camera's white balance setting to correct the colors while you are taking photos (see Chapter 5).

- ▶ If you have already taken photos, you can use your Image Expert software to adjust their colors.

Your picture is blurry or out of focus.



- ▶ Make sure your subject is within the camera's range. You should be at least 20 inches away to take a picture without the flash, 20 inches to 14 feet away for a wide angle shot (zoomed out) with the flash, and 20 inches to 11 feet away for a telephoto shot (zoomed in) with the flash.
- ▶ If you are taking a picture in macro mode, the camera can focus on objects at distances between 8 inches and 20 inches when the camera is zoomed in (telephoto). If you want to take closer pictures (as close as 2.36 inches), make sure the camera is zoomed all the way out (wide angle). See page 4-4.
- ▶ When you take macro close-ups, make sure you have adequate lighting. Using a tripod will help you capture sharp pictures.
- ▶ Make sure that your subject isn't moving and that you hold the camera steady after you press the shutter button (until the camera status light or photo capture light starts flashing).
- ▶ If you want to photograph a moving subject, try increasing the shutter speed. See Chapter 5 for information about how to change the shutter speed.
- ▶ Make sure your flash is not set to  flash off.
- ▶ When you focus on a nearby object, your picture's background may appear blurry. Try changing your focus.
- ▶ Try turning the camera on and then off. The lens may be misaligned if it is bumped, but is realigned when the camera is turned on.
- ▶ If you are shooting areas with little contrast, like an empty sky or a blank wall, the camera focuses at infinity. If you are shooting under poor lighting conditions, the camera may not be able to see the subject correctly and focuses at a distance of 4.9 feet.

Your picture is too dark (underexposed).

- ▶ You may need to use the flash. Make sure the setting is not  flash off.
- ▶ If you're using the flash, make sure your subject is within the range of 14 feet for wide angle shots or 11 feet for telephoto shots.
- ▶ Use Image Expert to adjust the picture's brightness and contrast. Read your electronic *Image Expert User's Guide*. (Instructions for reading the manual are on page 9-9.)
- ▶ Try adjusting the camera's exposure or sensitivity settings (use the Manual user mode). See Chapter 5 for details.
- ▶ If you're taking pictures in the Manual user mode, look for the **EV!** warning that appears on your LCD screen when you are taking pictures out of the ideal exposure range. If you have trouble setting both the aperture and shutter speed manually, try adjusting the aperture and letting the camera choose the shutter speed with Aperture Priority mode (see Chapter 5).

- ▶ If you're using the macro mode to take a close-up photo, be sure to provide adequate lighting for your subject.
- ▶ If you're taking a picture at night and you want to light up the background as well as your subject, use the camera's slow synchronized flash mode.
- ▶ If you need more light, attach an optional external flash to the camera's hot shoe (see Appendix B).

Your picture is too light (overexposed).

- ▶ If you're using the forced flash setting, it may be too bright. Try setting the flash to the  automatic setting.
- ▶ If you're facing a bright light source, you may need to shoot your picture from a different angle.
- ▶ Use Image Expert to adjust the picture's brightness.
- ▶ Set user mode to **Program** or **Manual** and adjust the camera's automatic exposure setting (see Chapter 5).
- ▶ If you use the flash for macro shots, your pictures may come out too light because the flash is close to the subject. Try using adequate ambient lighting and setting the flash to .

Part of your picture is missing.

Make sure you're not blocking the lens with your finger, neck strap, clothing, or other object.

A horizontal or vertical red line appears on your picture.

Red lines are caused by glare. Avoid photographing shiny surfaces that reflect excessive amounts of light into your lens.

The wrong date and/or time are displayed on your pictures.


When you change the batteries in your camera, you may need to reset the clock in the SETUP menu. See Chapter 7 for more information.

Your pictures don't look as good as they used to.

Your camera's lens may be dirty or dusty. Try cleaning it by following the instructions on page A-2.

The area captured in the photo is different from what you saw in the viewfinder.

- ▶ Make sure you look straight through the viewfinder.

- ▶ If you're taking a close-up or macro mode picture, turn the camera dial to  and use your LCD screen to preview your picture.

Video clips play back sideways.

Capture your video clips with the camera turned upright. You can't rotate video clips.

Where To Get Help

EPSON provides technical assistance 24 hours a day through the electronic support services and automated telephone services listed in the following table:

Service	Access
World Wide Web	From the Internet, you can reach EPSON Support at http://support.epson.com . At this site, you can download drivers and other files, look at product documentation, access troubleshooting information, and receive technical advice through e-mail.
Automated Telephone Services	A variety of automated help services are available 24 hours a day, seven days a week. To use these services, you must have a touch tone telephone and call (800) 922-8911 .

To speak to a technical support representative, dial **(562) 276-4303** (U.S.) or **(905) 709-3839** (Canada), 6 AM to 6 PM, Pacific Time, Monday through Friday. Toll or long distance charges may apply.

Before you call, please have the following information ready:

- ▶ Product name (EPSON PhotoPC 3100Z)
- ▶ Product serial number (located on the bottom of the camera)
- ▶ Proof of purchase (such as a store receipt) and date of purchase
- ▶ Computer configuration
- ▶ Description of the problem

EPSON Accessories

You can purchase accessories from the EPSON Store at (800) 873-7766 or visit www.epsonstore.com (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

Software Licensing

You can install EPSON File Converter and the USB storage driver on multiple computer systems. If you want to install Image Expert on multiple computer systems, please contact Sierra Imaging at (800) 501-8902 regarding the licensing fee.



Optional Accessories



Sections in this Appendix:

Using the Optional AC Adapter	B-2
Using a Tripod	B-4
Attaching an Optional Converter Lens or Filter	B-4
Attaching an Optional Flash	B-5
Using a PC Card Adapter	B-6
Photo Printers	B-8

You can use a variety of options with the PhotoPC 3100Z to enhance its capabilities and convenience.

You can purchase a NiMH Battery Pak (with 4 batteries) or replacement NiMH Power Pak (which contains a battery charger and 4 batteries). With a backup set of charged batteries, you'll have plenty of battery power. Additional CompactFlash memory cards are also handy to have to store more pictures.

These options should be available where you bought your PhotoPC 3100Z.

You can purchase accessories from the EPSON Store at (800) 873-7766 or visit www.epsonstore.com (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

Accessory	Product code
EPSON Universal AC Adapter	B867081
NiMH Battery Pak (4 batteries)	B818113
Universal NiMH Power Pak (charger and 4 batteries)	B818172

CompactFlash memory cards are available from the various manufacturers, such as:

- ▶ Lexar Media, (800) 789-9418
- ▶ SanDisk, (408) 542-0595
- ▶ Delkin Devices, (858) 586-0123

Make sure you purchase the correct size card. The PhotoPC 3100Z will accept ATA-compatible Type I CompactFlash cards up to 256MB.

Using the Optional AC Adapter

The universal AC adapter allows you to connect your PhotoPC 3100Z to any standard (110/230 V) outlet. You should use the AC adapter when you are previewing images, transferring images and connecting the camera to your video device. It is also convenient if you are taking indoor portrait photos.

The adapter powers the camera but does not charge the batteries.

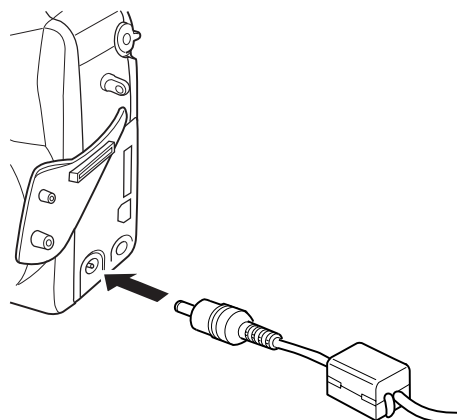
WARNING

- ▶ *Use only the AC adapter designed for the PhotoPC 3100Z. Using any other adapter could cause fire, electrical shock, or injury.*
 - ▶ *Do not use the AC power cable and the adapter for any purpose other than powering your PhotoPC 3100Z.*
 - ▶ *If the AC plug doesn't fit your outlet, have a proper outlet installed by a qualified electrician.*
 - ▶ *To avoid radiation danger, do not expose or remove the ferrite core.*
-

To avoid losing any images or settings, make sure the camera has finished processing and is turned off before you connect or disconnect the AC adapter. To connect the adapter:

- 1 Open the connector cover on the side of the camera.

- 2 Plug the adapter cable into the DC port on the camera.



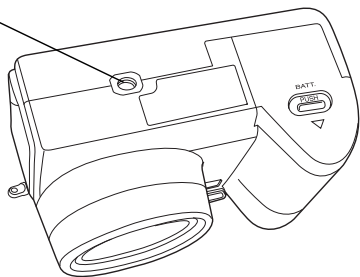
- 3 Plug the AC adapter into an electrical outlet.

Using a Tripod

To use the camera with any standard tripod:

- 1 Assemble and set up the tripod according to the manufacturer's instructions. Make sure the tripod is well-balanced on a flat surface.
- 2 Find the opening for the tripod screw on the bottom of your camera.

tripod screw
opening



Carefully place the camera on the tripod. Screw the camera on until it is firmly in place.

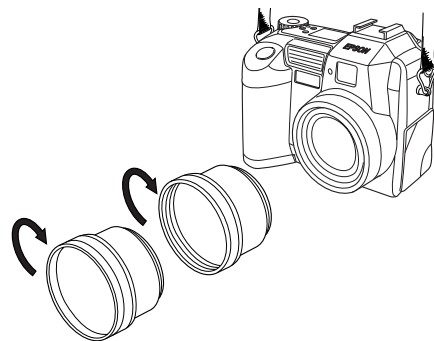
- 3 Adjust the tripod to view your subject as desired.

Attaching an Optional Converter Lens or Filter

You can attach a 49 mm telephoto or wide-angle converter lens to the camera using the lens adapter that came with your camera. You can also use 49 mm close up lenses and filters.

You can order accessory Tiffen® lenses and filters from DC Pro Digital Camera Accessories at (800) 522-7835 or (516) 434-8800, or visit www.dcprodirect.com on the Internet. See the brochure that came in your box.

Screw the lens adapter onto the camera's lens, and then screw the converter lens or filter onto the lens adapter.



Attaching an Optional Flash

You can attach an optional flash unit to the camera to significantly increase the brightness of your images in dark environments. It also works well for portrait photography.

EPSON recommends the following external flash (available through photo specialty shops, mail order catalogs, and on the Internet):

Brand: Metz

Model: 32Z-2

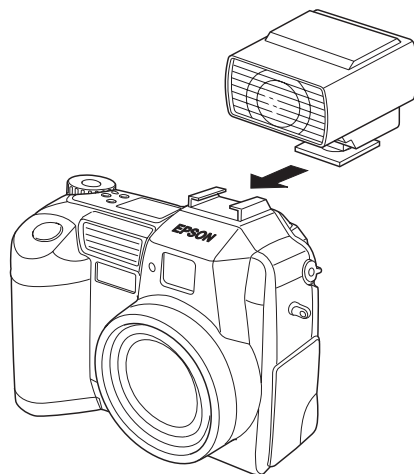
NOTE

The camera must be in the Manual user mode to enable the external flash. See page 1-10 to change your user mode to Manual.

To attach the flash and set up your camera to use it:

- 1 Make sure the camera and flash are both turned off.
- 2 If necessary, insert batteries into the flash unit as described in the manufacturer's instructions.

- 3 Slide the flash onto the top of the camera's hot shoe as shown below. (See the manual for the flash if you need more detailed instructions.)



- 4 Turn on the camera and turn your camera dial to SETUP. You see the SETUP menu.



5 Press the button next to Shot **SETUP**. You see the Shot **SETUP** menu.

6 Press the button next to **Trailing** (or the current flash setting) to change the setting to **Ext Flash** (external).

7 Turn the camera dial to the setting you want to use to take a picture.

8 Turn on the flash.



Now you are ready to start using your camera with the flash.

NOTE

The camera's flash modes are disabled when using the external flash. See the flash documentation for information on any available settings.

Using a PC Card Adapter

If your desktop or notebook computer has a Type II PC card (PCMCIA) slot, you can use a PC card adapter to access images stored on CompactFlash cards.

NOTE

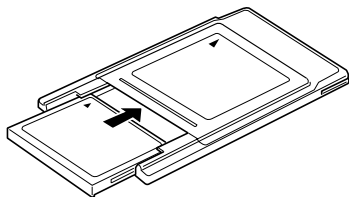
- *If you don't have an adapter, you can use Image Expert to transfer photos to your computer. Or you can use the USB Storage driver to copy your photos to your hard drive. See Chapter 10.*
 - *If you can't access a card in your notebook computer, contact the computer manufacturer. See page A-10 for more information.*
-

If you're using a Macintosh, you may need to enable PC Exchange extension software to access files on CompactFlash cards. See your Macintosh documentation for information.

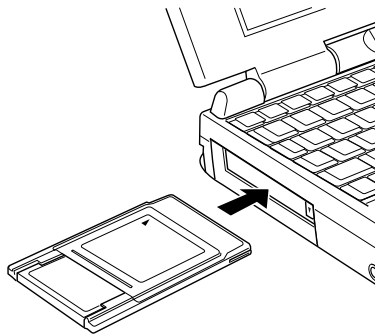
For information on installing, formatting, and removing memory cards from your camera, see Chapter 1.

Installing the PC Card Adapter

- 1 Insert the memory card all the way into the adapter.



- 2 Insert the adapter into your computer's Type II PC card slot.



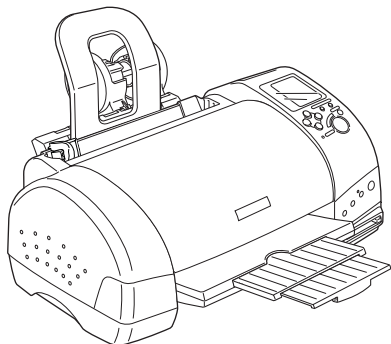
Transferring Photos With the Adapter

Once the adapter and card are installed in your computer's PC card (PCMCIA) slot, you can transfer photos by simply copying them to your hard drive. The photos are stored in the **DCIM/100Epson** folder on the card and the video clips are stored in the **Movie** folder.

- ▶ In Windows, use My Computer or the Windows Explorer to drag and drop image files to your hard drive.
- ▶ On a Macintosh, use the Finder to drag and drop image files to your desktop or hard drive.

Photo Printers

To get the best printouts of your photos, use an EPSON Stylus Photo printer.



Here are a few suggested printers:

► EPSON Stylus Photo 785EPX

This is the ideal printer for digital cameras. It includes a built-in PC Card slot and allows you to print BorderFree™ photos without turning on your computer. This printer includes complete support for PRINT Image Matching.

► EPSON Stylus Photo 890

This printer includes roll paper support and 6-color, BorderFree, photo-quality printing. This printer has a 2880 × 720 dpi resolution and prints with lightfast inks.

► EPSON Stylus Photo 1280

This printer features true photo reproduction quality. It creates wide printouts (up to 13 × 44 inches) and BorderFree photos. The EPSON Stylus Photo 1280 also supports roll paper printing and long-lasting prints with lightfast inks.

NOTE

The EPSON Stylus Photo 890 and EPSON Stylus Photo 1280 printers will include PRINT Image Matching support. If PRINT Image Matching software is not available when you purchase your printer, check the EPSON Support website at <http://support.epson.com> for software updates.

Specifications

Sections in this Appendix:

Camera	C-1
CompactFlash Memory Card	C-5
Optional NiMH Battery Charger	C-5
Optional NiMH Batteries	C-6
Optional Universal AC Adapter	C-6
Minimum System Requirements	C-7

Camera

Physical Dimensions

Width	4.3 inches (108 mm)
Height	3.5 inches (89 mm)
Depth	2.6 inches (65 mm)
Weight	12.6 oz (358 g) without batteries, strap, lens cap, and CompactFlash memory card

Power

Sources Includes 4 single-use AA alkaline batteries.
Also accepts 4 AA batteries (single-use lithium or alkaline, rechargeable NiMH or NiCd)

Optional Universal NiMH Power Pak (charger and 4 batteries, B818172)

Optional Universal AC adapter (B867081)

Battery Life
(when using the included alkaline batteries)

Over 4000 pictures using the viewfinder
Approximately 155 pictures using the LCD screen (with automatic shut off set to 30 seconds)
Approximately 210 minutes playback

Technical

Product type Digital still auto focus camera with LCD screen

CCD 1/1.8 inch color area CCD (3.34 megapixels)

Image resolution 2544 × 1904 pixels (HyPict)
2048 × 1536 pixels (uncompressed Tiff)
2048 × 1536 pixels (super fine)
1600 × 1200 pixels (fine)
640 × 480 pixels (standard)

File formats Still images: JPEG DCF (EXIF), Tiff
Video clips: QuickTime (Motion JPEG)
Sound files: wav

Bit depth 16 million colors, 24-bit

USB cable Small size, B-Type connector (camera)
Standard, A-Type connector (computer)

Video out NTSC and PAL standards

Internal ROM 2MB flash program memory

Internal RAM 16MB

Expansion memory 16MB CompactFlash memory card;
also accepts optional 4MB to 256MB, Type I CompactFlash memory cards

Self-timer 10 seconds

Tripod mount Built-in

Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C) Non-operating: -4 to 140 °F (-20 to 60 °C)
Humidity	Operating: 30 to 80% (non-condensing) Non-operating: 10 to 80% (non-condensing)

Safety

United States	FCC Part 15 Subpart B Class B
Canada	CSA C108.8 Class B

Photographic

Lens	$f = 7$ to 21 mm (equivalent to a 34 to 102 mm lens on a 35 mm camera) Brightness: F2.0 (W) to 2.5 (T)
Auto-focus range	20 inches (50 cm) to infinity (normal) 8 to 20 inches (20 to 50 cm) (macro mode) 2.36 to 20 inches (6 to 50 cm) (macro mode, wide angle)
Manual-focus range	Three settings (approx. 3 feet, 10 feet, and infinity) for normal mode and two settings for macro mode
LCD screen	1.8-inch TFT color LCD (110, 000 pixels: 512×218) Shows more than 98% of field captured
Sensitivity	Equivalent to ISO 100/200/400

Exposure control	<p>Programmed auto exposure</p> <p>Exposure value adjustment: -2 to +2 EV, in 9 or 21 steps</p> <p>Manual shutter speed and aperture settings, and shutter-priority and aperture-priority settings</p> <p>Spot metering and matrix metering</p>
White balance	<p>TTL automatic white balance</p> <p>Fixed white balance (5200K)</p> <p>User-defined white balance</p>
Zoom	<p>3× optical zoom</p> <p>2× digital zoom</p>
Shutter	<p>Electric iris with mechanical shutter, 1/1000 second to 8 seconds (shutter speed range varies, based on aperture setting)</p>
Viewfinder	<p>Real-image optical, with centering cross hair (view range approximately 83%)</p> <p>Adjustable focus with diopter</p>
Aperture	<p>F2, F2.3, F2.8, F4, F5.6, F8</p> <p>(aperture range varies, depending on shutter speed setting)</p>

Flash	<p>Built-in, automatic luminance control flash</p> <p>Hot shoe for optional external flash</p>
Flash modes	<p>Automatic flash, red-eye reduction, forced flash, flash off, slow synchronized flash mode (slow synchronized mode can be set to leading or trailing through the LCD menus)</p> <p>External flash mode for optional external flash that attaches to hot shoe on camera (can be enabled through the LCD menus)</p>

Photo Processing Time and File Size (approximate)

Image Mode	Photo processing time (seconds)	Photo processing time for playback (seconds)
Standard	0.7	0.5
Fine	1.0	0.5
Super Fine	1.0	0.5
HyPict	22.0	0.5
Tiff	18.0	0.5

* For HyPict JPEGs, the processing time varies depending on the complexity of the subject.

CompactFlash Memory Card

Density

16MB

Physical Dimensions

Width 1.7 inches (42.8 mm)

Height 1.5 inches (36.8 mm)

Depth 0.13 inch (3.3 mm)

Approximate Photo Capacity

Image Mode	Standard compression	Low compression
Standard	199	122
Fine	56	29
Super Fine	29	15
HyPict*	12	
Tiff*	1	

* For HyPict JPEG images, the compression always remains the same. Tiff images are always uncompressed.

** If there are video clips and/or sound recordings on the card, or if the images are complex, the quantity of photos may vary.

Optional NiMH Battery Charger

Physical Dimensions

Width 3.0 inches (76 mm)

Height 4.5 inches (115 mm)

Depth 1.1 inch (28 mm)

Weight Approximately 4.6 oz (130 g)

Technical

Input	100 to 240 V, 50 to 60 Hz
Output	DC 1.2 V/490 mA \times 4
Charging time	240 minutes maximum (initial charge) 2 1/2 hours average (subsequent charges)
Power consumption	Approximately 8W
Charging temperature	41 to 95 °F (5 to 35 °C)
Storage temperature	−4 to 86 °F (−20 to 30 °C)

Optional NiMH Batteries

Type	Cylindrical sealed Nickel-Metal Hydride rechargeable battery
Size	AA
Output	DC 1.2 V

Optional Universal AC Adapter

Physical Dimensions

Width	1.7 inches (43 mm)
Height	1.22 inches (31 mm)
Depth	4.1 inches (104 mm)

Technical

Output	DC 7 V/2.0 A
Input	100 to 240 V AC, 50 to 60 Hz

Minimum System Requirements

To transfer images to your computer and edit them, make sure your system meets these minimum requirements:

Windows Systems

- ▶ IBM-compatible PC with Pentium® 166 or higher processor
- ▶ At least 32MB RAM (64MB recommended)
- ▶ Double-speed CD-ROM drive
- ▶ At least 30MB free hard disk space
- ▶ VGA or SVGA monitor with at least 256-color display (16-bit color or greater recommended)
- ▶ Mouse or other pointing device
- ▶ 16-bit sound card and speakers
- ▶ Windows 2000, Windows Millennium Edition (Me), or Windows 98 (pre-installed)
- ▶ Built-in USB port
- ▶ QuickTime 4.1.2 or later (included on CD-ROM)

Macintosh Systems

- ▶ At least 32MB RAM (64MB recommended)
- ▶ At least 30MB free hard disk space
- ▶ CD-ROM drive
- ▶ VGA monitor with minimum resolution of 640 × 480
- ▶ Mouse or other pointing device
- ▶ 16-bit sound card and speakers
- ▶ iMac™ or Power Macintosh® G3 or G4 with Mac® OS 8.5.1 through Mac OS 9.1. (Panorama Stitcher requires Mac OS 8.6, or later.)
- ▶ Built-in USB port
- ▶ QuickTime 4.1.2 or later (included on CD-ROM)

NOTE

The included software does not support Mac OS X. If you are using Mac OS X 10.0 or later, check the EPSON website for possible software updates. Connect to the Internet, then go to <http://support.epson.com>. The included software cannot be used with the Multiple Users function of Mac OS 9.



Notices

Sections in this Appendix:

Safety Instructions	D-1
Declaration of Conformity	D-3
FCC Compliance Statement	D-4
Warranty	D-5

Safety Instructions

Read all of these instructions before using your camera:

- ▶ To reduce the risk of electric shock, do not remove the camera's cover or open any of the compartments except as instructed in this *User's Guide*.
- ▶ To prevent fire or electric shock, do not insert objects through any openings in the camera. Do not expose the camera to rain or moisture.

- ▶ To prevent fire or explosion, do not use the camera where inflammable or volatile gas is stored.
- ▶ If the camera shows unusual signs such as noise, odor, or smoke, turn it off immediately. Remove the batteries and/or disconnect the AC adapter, and unplug the AC adapter from the electrical outlet.
- ▶ To avoid damage to the optics of the camera, do not expose the lens to direct sunlight for extended periods of time.
- ▶ Do not insert the batteries backward.
- ▶ Do not use the camera outdoors during adverse weather conditions.

- ▶ Do not store the camera near sources of bright light, direct sunlight, high humidity, heat, excessive dirt or dust, or where it will be exposed to strong vibrations or magnetic fields.
- ▶ To prevent possible eye injury, do not take flash pictures of faces at close range.
- ▶ Avoid sudden temperature changes, which can cause moisture to condense on the camera. Keep the camera in a case or bag if you need to move it from a cold environment to a warm one. Allow time for the camera and its optional accessories to adjust to temperature changes before using them.
- ▶ Do not use a frayed or damaged power cord with the AC adapter.
- ▶ Remove batteries and/or unplug the camera and the AC adapter and refer servicing to qualified service personnel under the following conditions: if the power cord or plug is damaged; if liquid has entered the camera; if the camera has been dropped or its exterior has been damaged; if the camera or its optional accessories do not operate normally or exhibit a distinct change in performance.
- ▶ Adjust only those controls that are covered by the operating instructions.
- ▶ Do not attempt to service the camera yourself. Refer all servicing to qualified service personnel.
- ▶ If the liquid crystal solution contained in the display panel or in the LCD screen leaks out and gets on your hands, wash them thoroughly with soap and water. If it gets in your eyes, flush them immediately with water.
- ▶ Do not swing the camera about with the neck strap. This can cause damage to the camera or other objects, or cause injury.
- ▶ Do not pull or tighten the camera's neck strap too much when wearing it; this can cause serious injury.
- ▶ Keep the camera and all its included parts away from children.

Declaration of Conformity

DECLARATION of CONFORMITY

According to 47CFR, Part 2 and 15 for Class B Personal Computers and Peripherals;
and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: EPSON AMERICA, INC.
Located at: MS 3-13
3840 Kilroy Airport Way
Long Beach, CA 90806
Telephone : (562) 290-5254

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: EPSON
Type of Product: Digital Still Camera
Model: G790B

Product: EPSON PhotoPC3100Z

FCC Compliance Statement

FCC COMPLIANCE STATEMENT FOR AMERICAN USERS

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna
- ▶ Increase the separation between the equipment and receiver
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- ▶ Consult an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels that exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FOR CANADIAN USERS

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Warranty

EPSON AMERICA, INC. LIMITED WARRANTY

What Is Covered: Epson America, Inc. ("EPSON") warrants to the first end-user customer that the EPSON PhotoPC 3100Z Digital Camera enclosed with this limited warranty statement, if purchased and used in the United States or Canada, conforms to the manufacturer's specifications and will be free from defects in workmanship and materials for a period of one year from the date of original purchase. For warranty service, you must provide proof of the date of original purchase.

What EPSON Will Do To Correct Problems: Should your EPSON product prove defective during the warranty period, please call EPSON at 562-276-4303 for warranty repair instructions and return authorization, if required. An EPSON service technician will provide telephone diagnostic service to determine whether the unit requires repair. If repair is required, EPSON will, at its option, repair or replace on an exchange basis the defective unit, without charge for parts or labor. If the product requires repair or replacement, it is your responsibility to package it in its original container or an equivalent, along with proof of the date of original purchase and ship it to EPSON. Packaging and shipping costs incurred in presenting your EPSON product for warranty service are your responsibility. Return shipping costs from the EPSON repair facility are EPSON's responsibility. When warranty service involves the exchange of the product or of a part, the item replaced becomes EPSON property. The exchanged product or part may be new or previously repaired to the EPSON standard of quality. Exchange or replacement products or parts assume the remaining warranty period of the product covered by this limited warranty.

What This Warranty Does Not Cover: This warranty covers only normal consumer use in the United States and Canada. This warranty is not transferable and will not apply to products purchased from an end user. This warranty does not cover damage to the EPSON product caused by parts or supplies not manufactured, distributed or certified by EPSON. This warranty does not cover third party parts, components or peripheral devices added to the EPSON product after its shipment from EPSON. EPSON is not responsible for warranty service should the EPSON label or logo or the

rating label or serial number be removed or should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood, and lightning, improper electrical current, software problems, interaction with non-EPSON products, or service other than by an EPSON Authorized Servicer. If a claimed defect cannot be identified or reproduced in service, you will be held responsible for costs incurred.

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In Canada, warranties include both warranties and conditions.

Some jurisdictions do not allow limitations on how long an implied warranty lasts and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

To locate the EPSON Authorized Reseller nearest you call:
(800) 922-8911

or write to:

Epson America, Inc. □ P. O. Box 93012 □ Long Beach, CA 90809-9941 □ MS: 6-40



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